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A Study of the Effects of a Service-Learning Experience on Student Success at an Urban Community College

Judith Sheryl Berson
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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

**A STUDY OF THE EFFECTS OF A SERVICE-LEARNING
EXPERIENCE ON STUDENT SUCCESS
AT AN URBAN COMMUNITY COLLEGE**

**A dissertation submitted in partial satisfaction of the
requirements for the degree of
DOCTOR OF EDUCATION
IN
ADULT EDUCATION AND HUMAN RESOURCE DEVELOPMENT**

by

Judith Sheryl Berson

1997

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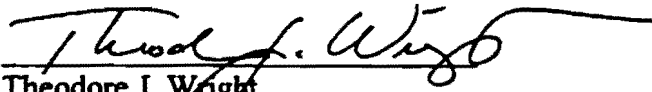
To: Dean I. Ira Goldenberg
School of Education

This dissertation, written by Judith Sheryl Berson, and entitled A Study of the Effects of a Service-Learning Experience on Student Success at an Urban Community College, having been approved in respect to style and intellectual content, is referred to you for judgment.


We have read this dissertation and recommend that it be approved.



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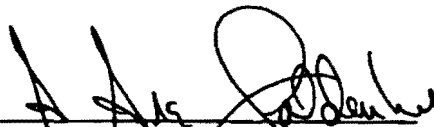
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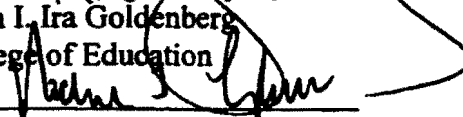


Charles Divita, Major Professor

Date of Defense: May 30, 1997

The dissertation of Judith Sheryl Berson is approved.



Dean I. Ira Goldenberg
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Dr. Richard L. Campbell
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Florida International University, 1997

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This dissertation is dedicated to my husband, Steven Zvi Levinson. Without his unwavering patience, understanding, support, and most of all love, the furthering of my education and the completion of this dissertation would not have been possible.

I also dedicate this dissertation to my mother, Beatrice, who instilled in me a love for learning and reading from the day I was born, and to the memory of my father, Dudley, who endowed his children with his fervent belief in the value of higher education.

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ABSTRACT OF THE DISSERTATION
A STUDY OF THE EFFECTS OF A SERVICE-LEARNING
EXPERIENCE ON STUDENT SUCCESS
AT AN URBAN COMMUNITY COLLEGE

by

Judith Sheryl Berson

Florida International University, 1997

Professor Charles Divita, Major Professor

The purpose of this study was to explore the effects of a service-learning experience on student success as measured by class attendance, course completion, final course grades, and end-of-term evaluation data.

Though many outcomes of service-learning experiences have been studied, including ethical values, self-esteem, student personal development, and career preparation, relatively few studies have been conducted on the effects of such experiences on academic achievement, and the studies that have been done have primarily studied students at traditional, four-year, residential universities.

The study consisted of 286 students enrolled in six paired courses taught by five instructors at a community college in the Fall term 1996. One section of each pair (the control group) was taught using traditional subject matter and course materials and the other section of each pair (the treatment group) participated in a 20-hour required service-

learning activity in addition to the regular course curriculum. The courses in the study included American History, Sociology, College Preparatory English, and Introduction to English Composition.

The results of this study indicate that, overall, students who participated in a class in which service-learning was a requirement, achieved higher final course grades and reported greater satisfaction with the course, the instructor, the reading assignments, and the grading system, and the treatment section of one course pair had fewer absences. In addition, the faculty members reported that, in the treatment sections, class discussions were more stimulating, the sections seemed more vital in terms of student involvement, the students seemed more challenged academically, more motivated to learn, and seemed to exert more effort in the course.

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CHAPTER I

THE PROBLEM

Introduction

Community colleges are often the only means for millions of Americans to gain access to higher education. Applauded by many as the premier providers of affordable educational services, these open door people's colleges are frequently criticized for becoming revolving doors. Increasingly, research indicates that high school graduates who intend to pursue higher education are less likely to succeed if they begin their studies at a two-year institution (Pascarella & Terenzini, 1991). Beyond stepped up attempts at self-assessment and program evaluation, community college administrators and faculty are continually searching for new ways to help students learn and graduate. Innovative programs, processes and teaching methods are explored and tested by community college leaders striving to create true learning organizations (Bumphus, 1996). One suggested antidote is the introduction of community service into the curriculum through service-learning (Enos & Troppe, 1996).

Service-learning is a course-related pedagogical method that utilizes experiential education to teach citizenship, academic subjects, skills, and values. The lessons are drawn from the experience of performing a service activity that meets community needs combined with critical reflection on the service to gain further understanding of the course content, a broader appreciation of the discipline, and an enhanced sense of civic

responsibility. Students can work in a wide range of projects, e.g., assisting in community agencies, participating in environmental projects, tutoring, mentoring, or providing services to at-risk populations.

Background of the Problem

While there is no doubt that the primary role of higher education is academic, the goal of educators is also to develop graduates who are fully functioning members of society. It is often volunteer work, service-learning, and out-of-class activities that produce our most valuable citizens and community leaders. As the information age dramatically changes our definition of the nature of work, educators face a dual challenge of preparing students to be productive in today's highly competitive marketplace while imparting the values necessary to sustain us as a society (Harkavy, 1995; Rifkin, 1996).

There are those who see the world's ills as so insurmountable that they make no effort to address them. According to Oldenberg (1990), many Americans are living in the key of "D" obsessed with "defeat, despair, denial, debt, distrust, drugs, danger, dysfunction, [and] divisiveness" (p. 552). Educators have the challenge of rewriting the script in the "key of C" so that America's future leaders will value change, choices, candor, capabilities, compassion, courage, catalysts, cooperation, collaboration, compromise, consensus, conflict, controversy, chaos, connectedness, cohesiveness, and community" (Komives, 1996; Smith, 1993) based on the assumption that each person can make a profound difference through individual acts of civic responsibility. Many of us

remember the 1960s when President Kennedy implored the citizens of the United States to ask not what their country can do for them, but what they could do for their country.

Since that time, we have become a nation known more for self centeredness and greed, where typically very little is contributed without a certainty of tangible personal gain. Alexander Astin (1991), a well known researcher who has monitored the values of incoming first year college students since the 1970s, found the students of the 1980s to be "markedly more materialistic and more concerned with having power and status" (p. 57). He reports that, for the past 20 years, students have tended to view their undergraduate degrees in terms of the potential for monetary gain and demonstrated little interest in the environment, the community, or the well-being of others (Astin, 1991). These students typically believe that someone else will take care of them and solve their problems.

The "me" generation of the 1980s is finally giving way to a return to the type of citizen activism upon which the United States was founded. In recent years, "helping others" has become one of the most popular extracurricular activities on college and university campuses as undergraduates seek out ways to personally address social problems (Ehrlich, 1995). We are witnessing a renewed interest in citizens responding to the myriad ills that increasingly permeate daily life in our nation's cities and towns. While society seeks answers, institutions of higher learning are also exploring creative ways of dealing with the very real problems of their surrounding communities.

Colleges and universities cannot afford the luxury of insulating themselves from such social issues as homelessness, illiteracy, teen pregnancy, dropouts, substance abuse,

juvenile offenders, and the elderly (Harkavy, 1995). One strategy is to design and implement a wide variety of programs that encourage students to participate in community service activities (Astin, 1991). Traditionally viewed as a training ground for teaching ethics and citizenship, today's colleges seek successful strategies for preparing the next generation of students to lead our country into the 21st century. According to Harvard President Derek Bok, a major role of colleges and universities should be to "reaffirm the importance of basic values such as honesty, promise keeping, free expression, and nonviolence," and he finds it appropriate to provide serious programs designed "to help students develop a strong set of moral standards" (Astin, 1991, p. 58).

Another means by which colleges support such activities is by imbedding them directly into the curriculum (Bringle & Hatcher, 1996). Professors throughout the country have been introducing service components into their courses. There is general agreement among those who value public service as a fundamental mission of higher education that academic programs and service must be combined (Hirsch, 1996; Bradfield & Myers, 1996). According to Kupiec (1992), the strategy of refocusing academic programs to help to "solve concrete, immediate real world problems...[will] advance higher education and human welfare" (p. 3).

In addition to social problems, educational institutions at every level are concerned with a general decline in academic standards. The 1980s brought intense public scrutiny and reports demanding reforms (Kerr & Gade, 1981; National Commission on Excellence, 1983). Recommendations for remedies centered on three

areas where change is needed. One demanded a more challenging curriculum including a requirement of certain core subjects and the elimination of nonessential courses; the second recommended longer school days, weeks or years; and the third recommendation focused on higher standards of student achievement (Feng, 1992a).

At open-door community colleges, the issue of academic standards is even more problematic. Institutions of higher education in Florida, like many other states, have been mandated to assess effectiveness as well as college readiness. All first time in college (FTIC) degree-seeking students are required to take standardized achievement tests or entry level assessment tests to determine appropriate course placement in English, reading and math. The official cut-off scores are established for each test by the State of Florida. Students who do not achieve the minimum assessment test scores must successfully complete a prescribed college preparatory course in that subject before they can matriculate toward a degree. In 1992, nearly 60% of all FTIC students who were tested statewide failed at least one out of the three sections (College Preparatory Success Rate Report, 1996, p. 2).

The number is even higher at Broward Community College, where 93% of all FTIC students must take at least one college preparatory course based on their entry level test scores (Feng, 1996a). Research indicates that successful completion of the college preparatory course work increases the chances for students to succeed academically and graduate (Feng, 1996a & 1996b). Nevertheless, the 1995 Florida Community College Accountability Report indicated that the percentage of students at Broward Community

College who had completed the highest level required college preparatory course within two years of entering college, was only 69.14% in reading, 61.52% in writing, and 31.78% in math. Thus a significant number of the 93% of students who are underprepared, will probably not graduate.

Florida community colleges will soon be held more accountable to their primary funding source, as the State of Florida is in the process of phasing in a system of performance based funding, a major change in the philosophy of state financing of higher education. Instead of funding community colleges based on the number of full time equivalent (FTE) students enrolled, funding will be based on the number of successful completers. Urban community colleges are dealing with high numbers of students who have traditionally been disenfranchised, educationally and economically. These students are more diverse in terms of age, family and ethnic background, previous academic preparation, employment status, and educational goals than their counterparts attending four-year institutions (Bean & Metzner, 1985). The heterogeneous groupings of students within community college classrooms, representing widely disparate range of ability and prior training, present an educational challenge of immense proportions. To accommodate such institutions, the funding formula provides extra points for categories such as students who begin in college preparatory courses, and students for whom English is not their native language. The challenge then is to assist underprepared students in completing their coursework. Feng suggests that educators consider implementing strategies to stimulate students' motivation (1996b).

One increasingly popular motivational strategy is service-learning, an educational practice that links education and social responsibility through active learning.

Enlightened citizens are the key to mending social ills on both an immediate and long term basis, but they need training, organization, and direction (Kendall, 1990).

Institutions of higher education are the ideal training grounds for such initiatives. Since its entry into college and university campuses in the 1960s, service-learning has provided a linkage between community service and classroom instruction, using reflection to develop critical thinking skills and a sense of civic responsibility (Kendall, 1990).

Service-learning is basically a form of experience-based learning. However, the primary difference between experiential education and service-learning is that the focus of the former is on benefiting the student, while the focus of the latter is two-fold in that service-learning is reciprocally beneficial to the student as well as the community, with the emphasis on the community (Cohen & Kinsey, 1994; Kendall, 1990; Kraft & Krug, 1994). The preamble to the Principles of Good Practice for Combining Service and Learning offers the generally accepted view of service-learning: "service, combined with learning, adds value to each and transforms both." The principles were the result of articulation between more than 75 national and regional organizations which culminated in a 1989 Wingspread conference hosted by the Johnson Foundation and co-sponsored by eight national organizations including the American Association for Higher Education, Campus Compact, and the National Society of Experiential Education, which was then known as the National Society for Internships and Experiential Education (Kendall,

1990). The resulting principles of good practice state that "those who serve and those who are served are enabled to develop the informed judgment, imagination and skills that lead to a greater capacity to contribute to the common good." Kendall (1990) agrees that the term "reciprocal learning in the community (p. 24) best defines what she calls the integration of meaningful community involvement with reflective learning. In a keynote address at the Colloquium on National and Community Service held by the American Association of Higher Education in January 1995, Thomas Ehrlich offered two distinct yet interrelated reasons why service-learning is of value in the context of academic courses: "1) Service as a form of practical experience enhances learning in all arenas of a university's curriculum; and 2) the experience of community service reinforces the moral and civic values inherent in serving others" (Ehrlich, 1995, p. 9).

Varying terminology, in addition to "service-learning," is used to describe the many forms that service takes. In this study, the following terms were also acceptable when selecting relevant research for consideration: "community service," "volunteerism," and "community-based learning," (Vue-Benson, 1995). What sets "service-learning" apart from "volunteerism," "community service," and "community-based learning," is the inclusion of structured reflection activities that strengthen both the service and the learning. As President Clinton stated in his remarks at Rutgers University (1993), service-learning enriches education because "students not only take the lessons they learn in class out into the community, but bring back the lessons they learn in the community back into the classroom" (Markus, Howard & King, 1993, p. 417).

Service-learning can be an option in a traditional course, a course requirement, or the focus of a service course. Any course can be designated as a service-learning course as long as the instructor agrees to inject a reflection component that relates the course content with the service issue. The Wingspread Group on Higher Education, a blue ribbon panel chaired by Senator William Brock, challenged U.S. colleges and universities in 1993 to assure that "next year's entering students will graduate as individuals of character, more sensitive to the needs of community, more competent to contribute to society, and more civil in habits of thought, speech and action" (Miami Herald, 1993, p. 10A). With such national attention being paid to the lofty goals that service-learning endeavors to achieve, it cannot be viewed as "merely a good idea, a faddish add-on to an already overburdened curricular reform agenda" (Battistoni, 1995, p. 34).

There is no one definition of service-learning (Luce, 1988), however the four criteria used by the Commission on National and Community Service of 1990 have become widely accepted:

A service-learning program provides educational experiences:

1. In which students learn through active participation in thoughtfully organized service experiences that meet actual community needs and that are coordinated in collaboration with school and community.
2. That are integrated into the students' academic curriculum or that provide structured time for a student to think, talk, or write about what he or she did and saw during the actual service activity.

3. That provide students with opportunities to use newly acquired skills and knowledge in real-life situations in their own communities.

4. That enhance what is taught in school by extending student learning beyond the classroom and into the community, and that help to foster the development of a sense of caring for others (Kraft & Krug, 1994; Cohen & Kinsey, 1994).

Tim Stanton of the Haas Center for Public Service at Stanford University, adds that service-learning is "a particular form of experiential education, one that emphasizes for students the accomplishment of tasks which meet human needs in combination with conscious educational growth" (Luce, 1988, p. 1).

Once defined, another challenge is in differentiating among different types of service experiences. Can a one-term volunteer experience involving weekly visits with senior citizens compare to a full-time, one year paid service internship? (Kraft and Krug, 1994). Giles and Eyler describe a continuum of "weak-strong interventions in service-learning" (1994, p. 337). A single day orientation to community service would be considered a weak intervention and a term-long internship, such as the on going tutoring of at-risk youth daily, once a week, or several times each month would be considered a strong intervention.

The 1990s have become the decade of accountability and educational reform. To obtain needed funding, educational institutions are mandated to document program value, specifically in terms of outcomes. Many service-learning initiatives begin as pilot programs or institutional "experiments." When a program is dependent on nonrenewable

grants, the temporary, part-time staff have to expend a great deal of time and energy constantly searching for new funding sources just to survive. If these programs are to prosper, it is essential for service-learning to become firmly established as an integral part of the academic program and curriculum. To accomplish this, replicable research studies are needed to validate the efficacy of such programs in terms of student learning outcomes (Miller, 1994).

Statement of the Problem

With the recent increase in the number of college students involved in service, there has been a growing interest in studying the effect of service-learning activities on student development (Luce, 1988). However, there are still important issues that need to be addressed, including the following:

1. The number of replicable studies on the impact of service experiences is very limited (Miller, 1994). This lack of empirical evidence on service-learning outcomes is even more evident in community colleges, even though two-year college students are participating in service in record numbers (AACC, 1996).

2. Student community service in general and service-learning in particular are often viewed as extracurricular or, at best, co-curricular. In light of the fiscal belt tightening that prevails in this country today, funding for service-learning initiatives is often eclipsed by academic program needs. In order to achieve equal standing as an integral part of the curriculum, data are essential to make the case if service-learning is to

become accepted by faculty and academic administrators as an integral part of the curriculum.

3. It is generally accepted that service-learning is a worthwhile activity and that participation is good for students in terms of affective outcomes. However, there is a serious lack of quantitative research on the effect of specific experiences on cognitive outcomes such as academic achievement, subject-matter knowledge, basic learning skills, attendance, or course completion (Conrad & Hedin, 1991; Markus et al., 1993; Miller, 1994).

Student development professionals and higher educational program administrators need more than smiles on the faces of students and anecdotal evidence as to the value of their college experiences (Hanson, 1990). Student success stories are heartwarming, but data speak louder than anecdotes and smiles. Systematic quantitative and qualitative research is needed to establish a relationship between co-curricular experiences, specifically service-learning experiences, and student learning (Conrad & Hedin, 1991).

Purpose of the Study

The purpose of this study is to measure the effects of a course-relevant service-learning experience on community college students in selected courses, in terms of their academic performance, class attendance, course completion rate, and their attitudes toward the level of effort they expended in the course.

Significance of the Study

Despite a general acknowledgment that students gain both personally and socially from community service experiences, service-learning has "remained marginal to the college curriculum because of a lack of confidence in its impact on student learning" (Cohen, 1994; Gore & Nelson, 1984; Kraft & Krug, 1994). Opponents challenge its inclusion in an academic curriculum, afraid it will take too much time away from the more "important" subjects. Advocates ask, "What is a more important role for our schools and colleges than to teach values and responsibility?" There is also a great deal of controversy over whether service should be a course or degree "requirement."

There has been relatively little research conducted on collegiate service-learning programs (Giles & Eyler, 1994; Miller, 1994). Few have used pre-tests, post-tests, control groups, or multivariate regression analysis (Myers-Lipton, 1995) or provided "solid evidence on its effects" (Kraft & Krug, 1994, p. 199). Most of the studies that have been conducted have not focused on the effect of service-learning on cognitive learning in the classroom due to the difficulty in assessing how much students actually learn in one course (Conrad & Hedin, 1991). According to researchers Giles and Eyler, there have been "few attempts to define and directly measure learning that occurs in service settings" (1994). They contend that research on the educational value of service-learning will become more critical as national policy promotes "community service as a way to meet societal needs, finance higher education, and foster citizen development" (1994).

Statement of Null Hypotheses

There are a variety of issues to examine when assessing service-learning outcomes. Typically, proponents suggest that two central questions be addressed: "1) What is the effect of service-learning on the intellectual, moral, and citizenship development of participants? and 2) What is the effect of service-learning on the advancement of social institutions and democracy?" (Giles, Honnet and Migliore, 1991).

Previous studies have examined the effect of a service-learning experience on student perception of their personal growth (Miller, 1994), social attitudes (Markus et al., 1993), moral reasoning (Boss, 1994), and cognitive, moral and ego development (Batchelder & Root, 1994). The current study examined student academic achievement in selected disciplines to assess whether participation in a structured service-learning experience has a significant effect on student success as measured by class attendance, attitudes toward effort, or course completion. It attempted to answer several critical questions, namely: "What effect does participation in service-learning have on students in terms of their course grade?" "Is there a significant improvement in student knowledge or skills as a result of their participation?" "Is there a significant difference in class attendance or course completion?" "Did students expend more effort in the course because of the service-learning requirement?" "To what extent were students satisfied with the course and the instructor?" "What were the issues and opportunities for faculty who added the service-learning requirement to their course?"

The following null hypotheses were addressed in this study:

Ho1: There is no difference in withdrawals during the drop/add period between students in the control section and students in the treatment section for each pair of courses.

Ho2: There is no difference in class absences between the students in the control section and students in the treatment section for each pair of courses.

Ho3: There is no difference in course completion rates between students in the control section and students in the treatment section for each pair of courses.

Ho4: There is no difference in the final course grades of students in the control section and students in the treatment section for each pair of courses.

Ho5: There is no difference in student end-of-term evaluation data, including attitudes toward effort, motivation and learning, and satisfaction with the course, the instructor and the grading system, between students in the control and treatment sections for each pair of courses.

Ho6: There is no difference between the aggregate control and treatment groups for any of the following factors: withdrawal rate during the drop/add period, class absences, course completion rates, final course grades, and student end-of-course evaluation data, including attitudes toward effort, motivation, and learning, and satisfaction with the instructor, the course, the reading assignments, and the grading system.

Definition of Relevant Terms

Academic Relevance:

Extent to which the service activity relates to course content and objectives.

BCC:

Broward Community College, one of Florida's 28 community colleges, is located in the southeastern region of the state in Broward County. The college is an urban, two-year, multi-campus, public institution serving approximately 50,000 students annually, with over 10,000 full-time equivalent (FTE) enrollments.

Community College:

A two-year, public, open-door institution of higher education that generally enrolls non-traditional students who may be older, multi-ethnic, disabled, under-prepared academically, and/or attending classes part-time.

Course:

One three-credit course which meets three hours per week, either three times per week on Monday, Wednesday and Friday, with each class scheduled for one hour, or two times per week on Tuesday and Thursday, with each class scheduled for one and one half hours.

Critical Reflection:

Structured reflection activities, e.g., written journals, class presentations, or small group discussions, which encourage participants to think about their experience and the learning that is taking place, promoting intellectual growth and the

development of critical thinking skills (Kendall, 1990) and the crystallization of service activities to promote learning (Fleischauer and Fleischauer, 1994).

Experiential Education:

A teaching pedagogy that involves the learner as an active participant in the learning process. Although off-campus experiences, such as internships, practicums and cooperative education are typical forms of such learning, in-class simulations, practice, and laboratory tests are also forms of experiential education. The primary emphasis is on benefits to the students, rather than the community or society.

Service Learning:

A course-related method of experiential education through which citizenship, academic subjects, skills, and values are taught. It involves active learning in that lessons are drawn from the experience of performing a service activity that meets community needs and includes critical reflection on the service activity to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. Whereas experiential learning is of primary benefit to the student, service-learning considers the contributions to those being served, the community, society, and the student's own intellectual and personal development to be of equal importance (Smith, 1993).

Students:

The student population in a community college is typically non-traditional in that they are older than the traditional graduating high school senior, commuters, employed, and/or attend college part-time.

Student Success:

The State of Florida currently measures success as students who complete a degree or certificate. However, for purposes of this study, student success is measured as course completion with a "C" or better, class attendance, and student satisfaction with the course, the instructor, the grading system, effort expended and motivation.

Term:

The Fall term, Term I, is a major term which lasted for 16 weeks from August 26 to December 19, 1996.

Assumptions of the Study

1. Broward Community College is typical of many urban community colleges in that it serves a non-traditional, diverse student body in a multi-campus setting.
2. The quality of the instruction will not change significantly between course sections in each pair of courses, as students will use the same books and materials regardless of section.

3. The effects of instruction would be adequately controlled by selecting the same instructor for both the treatment and control sections of each pair.

4. Levels of achievement motivation among students will not be significantly different between the control group and the treatment group of each pair.

5. Participating faculty possess the capacity to effectively manage course-related service-learning projects and provide guidance to students.

Limitations and Delimitations

Several limitations were apparent in this study. This study used a sample of 18 class sections, including courses in developmental writing and reading, English for speakers of other languages, history, and sociology, with the students in half of the sections participating in service-learning activities (n=210) and students in the other sections participating in a traditional course (n=210). The sample size may limit the generalizability of the results to the general population of students in the United States. The study is further limited by the fact that students were not randomly assigned to the course sections. Since classes of only nine instructors were studied, another limitation is the number of faculty members. Due to the multi-ethnic, multi-cultural student population at Broward Community College, the conclusions may only apply to similarly diverse student populations. Instructors self-selected as to whether they were willing to require service-learning for at least one of their class sections. There may be a difference

in characteristics between those faculty who volunteer to take on an innovative program and those faculty who do not. Other limitations of the study include lack of consistency in the quality and intensity of the actual service projects as well as the variety of methods used by the instructors in having students reflect on their service experiences. The lack of comparability of the courses and disciplines may also pose a limitation in the study. The population studied was also limited to students enrolled in a single Fall term during the 1996-97 academic year.

Delimitations in this study include the choice of Broward Community College. The institution's student population reflects the large proportion of today's students who require developmental courses in order to matriculate in college level courses; an ongoing student community service program was already in place; and the student demographics reflect the high percentage of minority students that other community colleges will encounter in the coming years.

Research Plan

The subjects were selected from students enrolled in selected courses in a public community college. A quasi-experimental nonequivalent control group design was used to study the effects of a service-learning experience on student success. Faculty members with at least two sections of the same course were recruited for voluntary participation in the study. One section of each instructor's pair was randomly selected by the principal investigator as the control group and the other section was designated as the treatment

group using a coin toss. Student and faculty questionnaires were administered, interviews and focus groups were conducted, and institutional records were used to provide the data for evaluation.

Organization of the Remaining Chapters

Chapter II provides a review and synthesis of literature on the problem and the theoretical framework for the study. Chapter III describes the research design and methodology employed to collect and analyze the data, including how the subjects were selected, instrumentation, and procedure. Chapter IV provides a detailed analysis of the data. Chapter V summarizes the findings of the study and provides conclusions and recommendations.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The purpose of this chapter is to provide a review and synthesis of the literature relating to the theoretical framework, the problem, and the methodology used for this study. The chapter begins with a discussion of the concept of experiential education, a paradigm which may be useful in the context of curriculum development, and the integration of service-learning as a learning style. Next, literature concerned with the issue of service-learning as a pedagogy is presented, followed by an examination of service-learning initiatives in universities, community colleges in general, and Broward Community College in particular. The chapter concludes with a comprehensive discussion of the research literature and the variables which have been associated with student learning. This review of the service-learning research literature provides a methodological framework for the study.

Experiential Education

Tell me, and I forget. Teach me, and I may remember. Involve me, and I learn.

--Benjamin Franklin

Since the late 1960s, experiential education programs have grown in popularity as an instructional strategy (Kendall, 1990). The most popular of these programs,

classroom-based experiential education, includes such strategies as games, acting, experimenting, group process, and simulations (Sigmon, 1979).

There are many who believe that "student activities are as 'curricular' in nature as the formal classroom or laboratory...and are at times superior in educational value because they are more intermeshed with life than an artificial classroom situation" (Walke, 1968). Advocates of experiential education agree that "learning by doing," the integration of abstraction with practicality, is the best way to ensure that students grasp concepts. Richard Battistoni (1995) of Providence College calls the connections that can be made in a service-learning context between practical experience and theoretical insight "quite powerful," and especially useful in "learning about citizenship in a pluralistic society" (p. 33). Long-time classroom instructors continually search for motivational teaching strategies as they wrestle with the issue of how to teach contemporary students who appear to be less prepared and less motivated than previous generations of college students (Schroeder, 1993).

There is some research in the literature on employment and training, career development, personal life skills development, and content mastery. However, since much of the research over the past 30 years has concentrated on program evaluation, there are few empirical studies on the effects on the participants (Giles & Eyler, 1994).

In a recent Community College Week (1996, August 12), Bruce Leslie, Chancellor of Connecticut Community-Technical Colleges, urged colleagues to "understand that rapid change will be necessary if we are to fulfill the community college

vision of the 21st century" (p. 4). He suggests seven factors that should be considered in changing the way community colleges teach:

1. Individuals learn best when they are fully involved in discovery.
2. Disciplines only have meaning as part of a whole, in the context of the individual's life.
3. Learning is best accessed through multiple approaches and contextual application.
4. Key elements of learning are experiential, (e.g., jobs, cooperative education internships) and precede learning rather than vice versa.
5. Coaches, mentors, and facilitator roles are replacing traditional faculty models and discipline expertise is becoming less important in student learning.
6. Learning in the community is more relevant, community resources are more plentiful, and people learn better in a social rather than an individual context.
7. Just as business and industry have changed, colleges must change by using a variety of strategies to create conducive learning environments (Leslie, 1996).

Leslie is suggesting that in order to teach the student of the 21st century, educators must seek new ways to address different learning styles by adapting teaching styles. The incorporation of service-learning into the curriculum may be one way to accomplish this.

Learning Styles

Since the 1960s and 1970s, theorists have reframed the paradigm of student development. One important shift is the understanding that the "dominant modes of teaching do not connect with all learners" (Komives, 1996, p. 541). Some researchers argue that today's learners prefer concrete and experiential approaches to teaching as opposed to faculty members whose teaching styles still rely on abstract and conceptual methods (Schroeder, 1993), urging educators to design "learning opportunities and

academic programs that respond effectively to the diversity of learning characteristics exhibited by today's students" (pp. 25-26). Schroeder suggests "active" modes of teaching and learning to create a better match between how students learn and how faculty teach. Individuals differ in how they view and relate to the world (1993). Typology theories are used to help explain these differences. One of the most popular such theories is the Myers-Briggs theory of personality type which is based on Carl Jung's theory that there are innate differences in human behavior that determine how they "take in and process information, how they learn, and the types of activities that interest them" (Evans, 1996, p. 179). Schroeder found the patterns of the Myers-Briggs Type Indicator (MBTI) to be very useful in understanding differences in how people learn. He found that the majority of college students today exhibit a strong preference for the ES (Extrovert/Sensing) pattern. According to Schroeder, "Experiential learning that actively engages their [students'] senses in the subject matter is often highly effective" for students who exhibit a preference for the ES pattern. Since ES types are concrete active learners, considered the most practical of the four patterns, they learn best when useful applications are obvious (Schroeder, 1993).

In linking experiential and vocational education, Sheila Gordon found that experiential education matched the learning styles of economically and academically disadvantaged community college students in vocational education programs (Sexton, 1976). Arthur Levine (1994) agrees that "active learning...is the preferred learning style of a quickly growing proportion of undergraduates" (p. 5). These students prefer to learn

from the bottom up, from concrete to abstract, rather than top down as previous generations were taught (Schroeder, 1993). This is especially applicable to community college students who tend to be concrete operational thinkers and learners according to Jean Piaget's cognitive-structural theory of student development (1964) than traditional university students, many of whom are at a higher level of formal or abstract reasoning ability (Pascarella & Terenzini, 1991, pp. 116-117).

According to Markus et al. (1993), the top down "information-assimilation model" typifies classroom instruction methods. In this model, students learn principles and facts from books, videotapes, or lectures (symbolic representations) whereas, in a bottom-up method, which typifies experiential education, students learn inductively from observation and direct personal experience (Markus et al., 1993).

For faculty who are dedicated to improving student success, service-learning can assist them in achieving "greater congruence between teaching styles and learning styles, thereby increasing the probability of students' ability to master content, acquire critical thinking skills, and understand increasingly complex issues" (Schroeder, 1993, p. 26). More and more student affairs professionals are working with faculty to achieve this goal (Komives, 1996). Because of their knowledge and concern for student growth and development, student affairs staff are being asked to assume increased responsibilities related to student learning and performance-based outcomes assessment. They are being called upon to design environments that will "facilitate individual growth and learning" through partnerships with such programs as "experiential learning, and service

applications of traditional courses" (Komives, 1996, p. 551) in consonance with Schroeder's (1993) belief that "learning is not a spectator sport" (p. 26).

History of Service-Learning

Though the roots of experiential-learning are attributed to William Penn (Ramaley, 1997), John Dewey is most often associated with promoting his belief that "theory and practice must work together" (Erhlich, 1995). In 1915, Dewey spoke of "the sense of reality acquired through first-hand contact with actualities" (p. 11). He believed that by directing students toward demonstrating concern for other people, increased learning would take place (Conrad & Hedin, 1991). William Kilpatrick is said to be the originator of school-based community service, having introduced the project method of learning near the end of World War I (Conrad & Hedin, 1991). The Progressives kept his method alive through the 1930s based on their belief that schools should strive to imbue students with ethical values and the skills to create social reform (Conrad & Hedin, 1991). Decades later, when Ernest Boyer envisioned the higher education institution of the future in *The Chronicle of Higher Education* (1994, March), he described a place where undergraduates would "participate in field projects, relating ideas to real life. Classrooms and laboratories would be extended to include clinics, youth centers, schools, and government offices" (p. A48). In *The Scholarship of Engagement* (1996), Boyer argues that academic programs and service must be combined. While Boyer may have never used the term "service-learning," what he called "the scholarship of engagement"

seems to mean the same thing. It is certainly the one movement in contemporary higher education that may be able to bring about his vision of an academy that "is as relevant to what he envisioned" (Zlotkowski, 1996, p. 27).

In 1989, forecasters at the United Way's Strategic Institute (United Way of America) predicted nine societal forces that will impact our nation's human and social service systems which they refer to as "changedrivers—profound influences upon our shared experience" (p. 1). Each force will have profound implications for higher education, either directly or indirectly (Komives, 1996):

1. Maturation of the U.S. population. The implications of the increase in the average age of Americans.
2. A mosaic society. As the population, especially the college student population becomes more diverse, curricula, services and people must adapt.
3. Redefinition of individual and social roles. In view of fiscal constraints, services must be provided more creatively, i.e. peer support groups instead of professional providers.
4. An information-based economy. Technology needs to be user friendly so as not to be the exclusive domain of high income, computer literate users.
5. Globalization. As the world becomes more interdependent, cross-cultural skills and international linkages must be provided to more than the privileged few who can afford study-abroad programs.

6. Personal and environmental health. As the population becomes more aware of their role in preserving their health and the ecosystem, campuses should model positive, healthy, environmental practices.

7. Economic restructuring. Increased competition for scarce funds will result in reorganizing, budget cutting and increased outcome assessment.

8. Redefinition of family and home. Nontraditional family arrangements require different services, e.g., child care, flexible scheduling, including families in student activities programming.

9. Rebirth of social activism. As citizens become more concerned about such issues as crime, drugs, the environment, many are becoming involved in seeking solutions.

Many of the issues identified are the very same concerns that are addressed by college community service initiatives, particularly the renewed interest in citizen involvement and activism in societal problems. Service-learning is generally viewed as a win/win/win situation, with gains for the community, the college, and the student participants (Berson, 1993; Fleischauer & Fleishauer, 1994). There is little research on the impact of student volunteers on the communities and agencies in which they serve, however, there is general agreement that there is a benefit to the community from undergraduates doing good deeds as part of their college experience (Cohen & Kinsey, 1994; Weaver, McElhinney & Allen, 1983). Social service agencies, particularly in urban areas, often are understaffed and unable to fully serve all potential clients. Properly

trained college students can alleviate some of the burden through campus-based programs that recruit, train, and place students with the agencies. It is believed that "service improves the quality of life in communities and contributes to the solution of community problems" (Rose, 1995, p. 3). The college gains through improved public image and strengthened relationships with the community agencies (Walker & Nozaki, 1991). A successful program can even lead to partnerships that can spawn new opportunities for funding (Walker & Nozaki, 1991).

There is also little argument as to whether service-learning has a positive impact on the psychological and social development of the student participants (Conrad & Hedin, 1991; Vue-Benson & Shumer, 1995). Beyond the immediate gratification of helping those in need, there are invaluable immediate and long term benefits to the students, including incentives, such as stipends or scholarships, as well as documented career-related experiences (Conrad & Hedin, 1982). Potential employers have always valued actual on-the-job-experience, often more than academic credentials, but now they also value community service experience when evaluating prospective employees (Bryan et al., 1981).

Several institutions have begun to document out-of class achievements and activities (Bryan et al., 1981). Co-curricular transcripts are becoming popular on many campuses as a complement to the official academic transcript that reports scholastic achievements. Often overlooked, but important partners in the business of higher education, are those who employ college graduates. In a national survey such employers

strongly supported the idea of co-curricular transcripts and indicated that they place importance on the involvement of students in extra-curricular activities (Bryan, et al., 1981). In an effort to reach the growing number of students who acquire knowledge best through "active" learning, faculty are beginning to add courses based on community service or infuse service into existing courses. These efforts are aimed at providing students with opportunities to gain job experience and affirm their career goals (Conrad & Hedin, 1982), develop open-minded problem-solving ability (Conrad & Hedin, 1982), and develop ethical values (Boss, 1994). Improvements in self-esteem have been shown, especially for students who serve as peer tutors or mentors to younger students (Conrad & Hedin, 1991). Myers-Lipton (1994) found that students who participated in service-learning showed an increase in international understanding, increases in civic responsibility, and decreases in racial prejudice.

Encouraging students to participate in community service and volunteer activities assists the students in experiencing the intrinsic benefits firsthand. Other faculty treat service-learning as if it were a "method of pedagogy" and include service in their courses because they believe that it improves learning of the subject matter. Pascarella and Terenzini (1991) report that "experimental research on peer teaching provides reasonably strong evidence that learning material in order to teach it not only increases student involvement in the process of learning but also enhances mastery of the material itself, particularly at the conceptual level" (p. 99).

Structured service-learning programs are designed to involve students, faculty, staff, and administrators of all ages and backgrounds, in community based service, and to establish service opportunities to challenge students to realize their potential, strengthen human bonds, develop a sense of civic responsibility, and make a lifelong commitment to service. By addressing the social needs of the communities surrounding colleges and universities, such programs support mutually beneficial collaborations (Fleischauer & Fleischauer, 1994).

On college campuses across the country, a quiet revolution is currently underway as more and more students become engaged in their communities. The Higher Education Research Institute (1996) reports that in a study of American entering college freshmen, 38.4% of the students reported that they performed one or more hours volunteering in 1996 as compared to 26.6% among the group that were asked the same question in 1987 (Astin, 1996). We are living in a world where students are bombarded by simulated experiences, virtual reality and the Internet, in and out of the classroom. Economist Jeremy Rifkin calls service-learning "an essential antidote to the increasingly isolated world of simulation and a growing immunity to hardship [and that] we need to broaden the concept of service-learning and rethink the whole mission of education" (1996a). He also sees the nonprofit sector as a major employer of the millions of workers during periods when the economy forces corporations to downsize.

President Clinton is credited with much of the recent resurgence of interest in national service through the National and Community Service Trust Act, signed into law

on September 21, 1993. The Act is designed to engage Americans in addressing the critical problems facing our country through meaningful community service. Learn and Serve America National Service Programs include the Higher Education Program, K-12 Program, School-Based Programs, Volunteers in Service to America (VISTA), National Senior Service Corps, Foster Grandparent Program, Senior Companion Program, and Retired and Senior Volunteer Program (RSVP). The AmeriCorps programs provide college tuition in return for service that addresses education, public safety, human and environmental needs. Public service is not a partisan issue. Former presidents promoted similar programs during previous administrations. Through the Peace Corps and Vista, John F. Kennedy challenged Americans to ask not what their country could do for them, but what they could do for their country. The foundation for AmeriCorps was actually established by George Bush's nonpartisan Commission on National and Community Service and ACTION, as well as the Points of Light Foundation, which recognized community service activities. President Bush signed the National and Community Service Act of 1990, which established the funding for today's programs encouraging America's youth to engage in community service.

Service-Learning at Universities

Service-learning initiatives are often as unique as the institutions that design them. Mirroring the honors programs of the 1960s, institutions like the University of Utah offer special recognition at graduation for students who complete 15 hours of special courses,

serve 400 hours as a volunteer, and complete a final integrative service project (Fisher, 1991). Considered one of the nation's leaders in service-learning, Utah offers 57 courses in 35 majors that require two to three hours of service per week (Groennings, 1997). Over 9,000 students have volunteered with approximately 50 community service agencies through Utah's Lowell L. Bennion Community Center, which began as an extra-curricular service project (Groennings, 1997). The Walt Whitman Center at New Jersey's Rutgers University, brings community experience back into the classroom to enhance learning (Segal, 1994).

Programs at Princeton University and UCLA match graduates with alumni who are employed in service organizations (Segal, 1994). Students at Florida State University (FSU) are increasingly engaged in public service. Students contribute thousands of hours in nursing homes, hospitals, and soup kitchens. They teach reading, assist in job training and health care, and work on environmental projects. FSU student volunteers assist migrant laborers through Project Amistades (Friendships) and operate an evening English as a Second Language program to provide language instruction. A new Center for Civic Education and Service places students, assists faculty, and maintains transcripts of students' service records. FSU President D'Alemberte believes that focused service will "improve instruction, enrich the education of students, make the student more desirable to prospective employers, and make the community a better place to live. . . .Connecting with different sectors of our society builds trust and teaches civic responsibility" (1996, p. 2).

At Edinboro University in Pennsylvania, students in many disciplines earn college credit for learning tutoring skills and developing civic awareness (Fleischauer & Fleischauer, 1994). Students in the Edinboro service-learning course provide 60 hours (five hours per week) each term of on-site tutoring activities at inner-city educational programs.

No list of university initiatives would be complete without including the highly acclaimed Haas Center at Stanford, Notre Dame's Center for Social Concern, and the Swearer Center at Brown University. These universities offer comprehensive programs, with service-learning and student volunteer service functions centralized at one location (Bringle & Hatcher, 1996).

Service-Learning at Community Colleges

Community colleges, which enroll 49% of all first time freshmen college students (AACC, 1996), are a logical choice for building a service-learning infrastructure. There is no better marriage than the one between service-learning and community colleges, as these institutions are already well-connected to the community and are composed of students who are residents of the community and are more likely to remain there after graduation (Berson, 1994).

According to a 1995 survey, 75% of community colleges are either actively involved in or interested in offering service-learning on their campuses (AACC, 1996). Nevertheless, community colleges are often overlooked by the mainstream of the service-

learning movement. An example is that when Campus Compact brought together the Integrating Service with Academic Study (ISAS) Advisory Committee, at the Ford Foundation in New York City (December 18, 1995), a blue ribbon panel, community colleges were not represented or even mentioned. In 20 pages of meeting notes, the term "community college" was referred to only once, as an example along with tribal colleges in the context of "fashioning" future Campus Compact regional initiatives to "sector specific needs" (p.19).

In 1994, the American Association of Community Colleges initiated its service-learning project with support from the Corporation for National and Community Service "to strengthen the service-learning infrastructure within and across community college, and to help train faculty members in skills needed to develop effective service-learning opportunities (AACC Service Learning Home Page, 1996). Some experts believe that assessment of institutional effectiveness at two-year institutions should use different indices of success than those used to evaluate traditional universities and colleges, preferring university transfer rates, job placement rates, skill improvement in current job, achievement of personal goals, or achievement of other objectives not directly related to degree completion (Walleri & Cosgrove, 1992).

A significant difference between students who attend community colleges and those who attend universities is that community college students can "succeed" without ever receiving a degree or certificate from the institution. Obtaining employment is a measure of success, as is improving needed job skills for a current or future job.

Transferring to an upper division institution to pursue a baccalaureate degree without first attaining an Associates Degree, is also a measure of success (although performance based funding legislation does not yet consider it a measure worthy of full funding).

Service-Learning at Broward Community College

Broward Community College is committed to the concept of active citizenship and participation in improving community life. The college recognizes the value of public service, and considers structured reflection activities an integral part of a student's educational experience to promote learning about the community served, leading to a greater capacity to develop empathy and judgment. In fact, the college mission now includes the statement "to provide the opportunity for students to contribute to the well-being of others through student service-learning programs as part of their higher education experience" (BCC 1996-97 Catalog, 1996, pp. 22-23).

Even before Broward Community College became proactive in promoting a service-learning agenda, students at the college were encouraged to perform service. Student clubs and organizations have historically required members to participate in service activities such as Toys for Tots, and feeding the homeless. Since 1982, the Division of Student Affairs has been working toward institutionalizing student community service through the implementation of various pilot programs. Four projects received seed money from the U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE), supplemented by funding from the college,

Broward Community College Foundation, Broward Community Foundation, The Philip Morris Companies, and ACTION, the Federal Domestic Volunteer Agency. These grants funded such programs as Challenge to Youth, in which college students were paired with first-time juvenile offenders; Transitional Insights Program (TIP), which matched BCC students of high academic standing with high school seniors with learning disabilities to assist them in fulfilling their desire to go to college; and Students Offering Service (SOS), a program designed to involve non-traditional students (older, multi-ethnic, or multi-national) in community service. By 1994, the BCC Community Connection was established to serve as an umbrella organization for the targeted initiatives and to encourage and assist faculty in incorporating service components into their courses. As of July 1, 1996, Community Connection began reporting directly to the Student Life Department. This was a major milestone in that the student community service program became fully funded institutionally through a student service fee and thus is no longer totally dependent on grant funding. Another important accomplishment is the Fall 1997 implementation of a co-curricular transcript to document out-of-class activities.

Student Learning Outcomes

Much of the past service-learning research has been "theoretical, philosophical, impressionistic or anecdotal, and most has been concerned with secondary school students" (Miller, 1994). According to Williams (1991), the majority of the studies he reviewed on field development were not definitive. Although the number of theory-based

studies is relatively small, the resulting data can help in developing an understanding of effects of service-learning on college students. Figure 1.1 presents the information on these studies in table form.

In the studies that have been conducted on college undergraduates, researchers have generally been able to substantiate claims that participation in service-learning has somewhat positive effects on the psychological, social, and cognitive development of students (Batchelder, 1994). Although student service programs often have differing goals, previous studies have generally focused on moral, ethical, social, attitudinal, and personal development outcomes (Giles & Eyler, 1994; Markus, et al., 1993). At the University of Rhode Island, Boss (1994) conducted a controlled experimental study in her undergraduate ethics course. She incorporated a service component into one of the sections and taught the other class in the traditional manner. She found a significant increase in students' moral reasoning ability in the treatment section.

Figure 1.1

Overview of Related Theoretical Research with Undergraduates Related to Service-Learning and Experiential Education

RESEARCHER	POPULATION	PURPOSE	FINDINGS
Astin, 1996	Undergraduate students who participated in service at 41 Learn and Serve Higher Education grantee institutions. (n=3,400)	A study by RAND and UCLA on the effects of participation in service on college students on 35 dimensions.	Participation in service resulted in higher levels of academic achievement, civic responsibility and life skills.
Batchelder & Root, 1994	Students in various courses at a small, Midwestern, liberal arts college. (n=226)	Used an experimental design to evaluate the effect of service-learning courses on the cognitive, moral and ego development of the students.	Participation in service-learning facilitated student development in thinking about social problems, prosocial decision-making, prosocial reasoning, and their tendency to reflect on occupational identity issues.
Boss, 1994	Students enrolled in two sections of ethics at the University of Rhode Island. (n=71)	Used an experimental design to test the effect of a 20-hour community service requirement on moral reasoning.	The section that engaged in community service work and participated in discussions of relevant moral dilemmas improved in their moral reasoning ability.

Cohen & Kinsey, 1994	Students enrolled in Mass Communication and Society, a lecture course at a residential research university. (n=220)	To determine the value of service-education projects at numerous sites in terms of general education goals and curriculum specific goals.	Service education, as a pedagogical tool, increased motivation and contextual understanding of specific, substantive course material involving messages and audiences, and students found the project was more useful than other types of assignments.
Giles & Eyler, 1994	Students enrolled in a required 1-credit community service laboratory at Vanderbilt University. (n=72)	To determine whether a required 24-hour service-learning experience can have an impact on measures of social responsibility.	Students showed a significant increase the belief that people can make a difference, increased commitment to continue doing community service, and reported changes in their perception of the clients.
Hudson, W.E., 1996	Students enrolled in American Public Policy and a European politics course at Providence College. (n=51)	Used an experimental design to determine differences in belief orientations or attitudes as a result of participation in a course with service-learning.	No significant difference was found in student belief orientations or attitudes between the two courses. However the design did not isolate the potential impact of the service-learning component.
Kendrick, 1996	Students enrolled in Sociology I at SUNY Cortland. (n=123)	To examine the effects on two sections of the same course, one with a 20-hour service requirement.	Students in the service section showed increased social responsibility and personal efficacy, and greater ability to apply course concepts to new situations.

	Markus, Howard, & King, 1993	Students enrolled in Contemporary Political Issues, a lecture course at the University of Michigan. (n=89)	Used an experimental design to test the effect of service-learning on personal values and orientations.	Students reported that they had performed up to their potential in the course, learned to apply course principles to new situations, and developed a greater awareness of social problems.
	Miller, 1994	University students in two advanced Psychology courses at the University of Michigan. (n=35)	To examine the effects of an optional linkage between a traditional Psychology course and a community service- learning course.	Students who selected a service- learning option rated it as significantly more valuable and reported enhanced ability to apply course concepts outside the classroom.
25	Robinson, 1975	Community college students enrolled in a social science course. (n=100)	To examine the effects of a 1-credit community service laboratory attached to a 3-credit social science course on student satisfaction.	Participation in an innovative community service-oriented curriculum was far more satisfying than participation in the traditional curriculum.
	Serow, 1990	College and university students. (n=965)	A study of the effect of community service on student values.	Current efforts to encourage community service should acknowledge the role that values play in pro-social behavior.

Other studies have evaluated the impact on the community and those served (Kraft & Krug, 1994), students' psychological development (Kraft & Krug, 1994), sense of civic responsibility (Conrad & Hedin, 1982; Giles & Eyler, 1994), commitment to continued community service (Hedin, 1989), or personal attributes such as self esteem (Conrad & Hedin, 1982; Hedin, 1989). By and large, studies have found that students value their participation in service-learning experiences, are better able to integrate theory with practice, and demonstrate increased knowledge in areas related to their service experience (Conrad & Hedin, 1992; Markus et al., 1993). Alexander Astin called service-learning "a powerful vehicle for colleges and universities to make good on their commitment to prepare students for responsible citizenship" (Astin, 1996, p. 19).

There has been some question as to the value of long term participation versus one-time experiences. However, Giles and Eyler (1994) found that even students who participated in a one-credit community service laboratory course showed a significant increase in the belief that people can make a difference, increased commitment to perform community service in the future, and were "less likely to blame social service clients for their misfortunes" (p. 327), an indicator of increased tolerance.

A three-year research project was conducted at Barnard College, with funding from the U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE). One of the research questions investigated was whether the time devoted to community service had a deleterious effect on students' grade point averages. Although the study was conducted at a four-year, selective institution, the findings

confirmed that spending time in a community service internship had no effect on 83% of the students, and a positive effect on 14%. Only 3% experienced a decrease in their GPA (Tullier, 1994).

Skeptics question whether a program that increases students' tolerance of others, their desire to help those in need, their intention to give to charity, or their choice of a social service career is central to the academic mission of institutions of higher education (Cohen, 1994; Hedin, 1989). With the exception of a few studies, there has been relatively little research in the arena of intellectual, cognitive, and academic effects (Giles et al., 1991). The Research Agenda for Combining Service and Learning in the 1990s (Giles et al., 1991) confirms that there is a "relative scarcity of empirical research documenting such benefits" (Batchelder, 1994, p. 342). Conrad & Hedin (1991) report a "gap between the significant gains suggested by qualitative and observational studies and the outcomes reported in the quantitative research" (Batchelder, 1994, p. 342). This is attributed primarily to the methodological problems encountered in trying to separate the effects of service-learning on academic achievement.

Markus et al. (1993) conducted one of the few studies that attempted to isolate the effects of service-learning on academic achievement. The researchers used a randomized control group design to compare sections of political science classes with and without a service-learning component. By randomly assigning the community service activities, they controlled for student achievement levels. However, as in many similar studies, the students in the control group were required to write longer term papers based on library

research than students who participated in the service activities (Markus et al., 1993). Nevertheless, the results indicated higher scores on mid-term and final examinations, a significant increase in favorable course evaluations, and the students who performed community service demonstrated more positive attitudes toward service and the community. An important finding of the post-test was that students in the service-learning sections were more likely to report that they had performed up to their potential in the course than students in the control group sections.

The most extensive evaluation on the effects of student community service is being conducted by the RAND Institute on Education and Training on the institutions that received Learn and Serve America Higher Education grants. This national evaluation of 42 institutions has been examining the type of service work performed, impacts on service recipients, impacts on institutions, and impacts on the student service providers (Gray et al., 1996). The portion of the evaluation that focuses on the college and university students who provided the service was conducted for RAND by the Higher Education Research Institute (HERI) at the University of California in Los Angeles (Gray et al., 1996). Surveys from 3,450 students at the participating institutions compared service participants with nonparticipants in three general areas of student impacts—civic responsibility, academic development, and life skills development (Gray et al., 1996).

Preliminary findings show that all 35 outcome measures were positively influenced by the students' service participation as evidenced by statistically significant positive effects in each area studied (Gray et al., 1996). A co-director of the evaluation is

Alexander W. Astin, who is well-respected as one of the nation's foremost scholars on the subject of how the college experience impacts student change (Pascarella & Terenzini, 1991). Astin is nationally recognized for his longitudinal studies on student outcomes and research on attitudes and behavior of college freshmen, particularly his "theory of involvement" based on Pace's work, which he uses to explain the dynamics of student development (Pascarella & Terenzini, 1991, p. 50). In presenting the preliminary findings of the study at the Campus Compact Presidents' Leadership Colloquium in March 1996, Professor Astin reported that in the 35 years that he has been doing evaluation studies on all types of programs, he has "never seen anything like this, where every single outcome measure--grades, retention, enrollment--qualitative and quantitative, was favorably influenced" (Astin, March 1996).

A study by Conrad and Hedin (1991) indicated a relationship between participation in a community service activity and increased knowledge of the subject matter and self-reported learning. Another study by Sugar and Livosky (1988) showed an increase in the final course grades of students who participated in service-learning activities as compared with a control group (Miller, 1994). However, these findings were challenged for several reasons. First, the students' grades included extra credit for students who participated in the community service. Second, there is some evidence that, when service is voluntary, it is typically selected by the higher achieving students (Serow & Dreyden, 1990). In addition, higher grades do not necessarily mean that the students learned more or grew more, cognitively.

In a study of high school students participating in a magnet school dropout program, Shumer (1994) demonstrated that service-learning can be effective in "improving attendance and school grades, as well as helping students to learn" (p. 361). The improved grades were attributed to better attendance as well as having a "curriculum which connected them to their service and their community" (p. 361). In self-report questionnaires where students were asked to rank order the programs that influenced their academic success, the field experience had the most influence on whether they stayed in school. Shumer reports that the students seemed to be "motivated and inspired" as a result of their field experiences (1994).

In a study of undergraduate social science internships, the interns showed more confidence in their career choices and an improvement in their grade point averages during their internship year (Rosman, 1978). The service participation had positive effects on academic development, including grades earned, degrees sought, time devoted to academic endeavors, academic self-confidence, and students' self-assessments of knowledge gained. The results are especially remarkable in view of the fact that the average volunteer spent only six hours per month performing service (Astin, 1996).

Conceptual Framework

A variety of student development theorists have offered insight into understanding how students benefit from service-learning experiences. Several theoretical models have

proved useful in studying the effects of collegiate service-learning experiences (McEwen, 1996):

1. Cognitive Development

Some proponents of service-learning suggest using the cognitive science model to examine the key elements of effective learning which confronts real problems in real contexts. Theories such as Kohlberg's Theory of Moral Development describe how students think and process information (McEwen, 1996).

2. Learning Styles

There is a wealth of research on the subject of how different individuals deal with the world and react to their environments based on such theories as Kolb's Model of Experiential Learning and Learning Styles (McEwen, 1996) based on Dewey's (1915) early advocacy of experiential educational approaches to the learning goals and processes associated with service-learning.

3. Student Retention

Another theory of use in examining service-learning outcomes in higher education is student retention (Pascarella & Terenzini, 1991; Tinto, 1994). It goes without saying that students must remain in college in order to succeed or graduate. For this reason, retention research is inherently relevant to determining the factors that impact student success. Tinto's (1985) widely accepted model attempts to explain the factors that have an influence on college student retention.

An important aspect of retention is student effort. Research has found that student success can be attributed more to the amount of effort students devote to educationally meaningful activities than to other factors, such as the type of institution they attend (Astin, 1984). Pace's work is based on the assumption that "what a student gets out of college is dependent not only upon what the college does or does not do but also on the extent and quality of the effort that the student puts into college" (in Pascarella & Terenzini, 1991, p. 99).

Beyond student effort, Astin (1984) has found that retention is affected significantly by the degree to which students become involved in on-campus and off-campus activities. Astin's theory of student involvement has been used to explain the dynamics of student development (in Pascarella & Terenzini, 1991).

Based on Pace's (1984) work on the quality of student effort, Astin's Cooperative Institutional Research Program (CIRP) survey data (1985) provides an understanding of students during the first two years of undergraduate work. Astin (1985) asserts that an educational policy or practice can only be effective based on the extent to which it induces student involvement (Pascarella & Terenzini, 1991). Rather than students "passively" changing as a result of encounters with the institutional environment, Astin posits that "the individual plays a central role in determining the extent and nature of growth according to the quality of effort or involvement with the resources provided by the institution" (Pascarella & Terenzini, 1991, p. 51).

Building upon Astin's model of institutional impact, and the work of Spady, (1970), Tinto (1987) theorized that such intentions and commitments are subsequently modified through a series of "interactions between the individual and the structures and members of the academic and social systems of the institution" (Pascarella & Terenzini, 1991, p. 51). He contends that student retention, and ultimately student success, is a direct result of "satisfying and rewarding encounters with the formal and informal academic and social systems of the institution" [and is] "presumed to lead to greater integration" (Pascarella & Terenzini, 1991, p. 51).

There has been some degree of controversy, however, as to whether Astin's contentions actually constitute a theory. It is a dynamic principle, but according to Kerlinger (1986), it does not constitute a theory, which he defines as "a set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena" (Pascarella & Terenzini, 1991, p. 51).

Tinto's model has been used successfully to study many student outcomes in addition to college attrition, e.g., academic skill acquisition, personal change, major field changes, and his theory of departure (Pascarella & Terenzini, 1991). However, most of the studies, including those of Tinto, have been based on the experiences of traditional-age students between the ages of 18 and 22 attending four-year institutions on a full-time basis and living in on-campus, residential settings (Knight, 1994; Pascarella & Terenzini, 1991). These studies do not address today's student, especially today's community

college student. The college student of today is typically older, commutes, attends classes part-time, has family responsibilities, works at least 20 hours a week, and is racially or ethnically diverse (Kuh & Vesper, 1991; Pascarella & Terenzini, 1991). For these students, academic goals often compete for time spent with their families, work, and community activities.

Research based on "traditional" students may not be relevant to the "new majority" students (Ehrlich, 1991). In How College Affects Students, Pascarella and Terenzini (1991) provide a comprehensive review of 20 years of empirical research, synthesizing more than 2,600 studies on student outcomes. The authors recommend that researchers reconsider the "traditional ideas about what the impact of college really means for nontraditional students" (p. 632) and focus attention on what they expect to be "the single most important area of research on college impacts in the next decade (p. 632).

Pascarella and Terenzini (1991) suggest that, since "some of our most cherished notions about the determinants of impact may have little relevance to these students" (p. 632), investigations into college effects should be refocused on the vast numbers of students who, although usually classified as "nontraditional," are "rapidly becoming the majority participants in the American postsecondary system" (p. 632). Knight (1994) agrees that more studies are needed on community college students where their "backgrounds and goals and the type and scope of student involvement opportunities may be unlike those for senior institutions" (p. 3-4).

The proposed study of the relationship between a service-learning experience and academic success will be guided by Tinto's Student Integration Model (Tinto, 1987). Since much of Tinto's work has focused on students at four-year institutions, it is important to determine whether the same concepts and approaches that are applied to traditional students attending traditional institutions can adequately describe the student experiences at community colleges.

Like the metropolitan universities studied by Kuh and Vesper (1991), community colleges have two impediments to drawing conclusions about effects on student success. First, community colleges lack long-standing traditions due to their "short histories" (p. 7), and second, they "cannot isolate students from their environment nor from interactions with significant others not on campus (e.g., family, old friends)" (p. 6). Community colleges, like metropolitan commuter universities, are "connected" to the city in which they are located (Kuh & Vesper, 1991), rather than situated in isolated, residential setting as are many private and public universities. Urban institutions of higher education are "linked programmatically, economically, and politically with the surrounding community" (Kuh & Vesper, 1991, p. 7). Tinto's model is appropriate for this study, as it provides an explicit theoretical structure which "offers significant opportunities both to researchers who wish to study the college-to-student change process and to administrators who seek to design academic and social programs and experiences intended to promote students' educational growth" (Pascarella & Terenzini, 1991, p. 53).

Summary

Despite the relatively small number of controlled research studies that examine the effects of service-learning (Kraft & Krug, 1994), it is generally accepted that service participation has a positive effect on students' ethical and social values, leadership ability, social skills, self-esteem, concern for others, racial understanding, commitment to continued service, and critical decision-making ability (Kendrick, 1996; Williams, 1991). However, service-learning is viewed as a philosophy of education as well as a program type. As an educational philosophy, data are needed to substantiate the academic benefits to students in addition to ethical, social, and personal development benefits. In this regard, research on experiential education and learning styles is of some use.

As service-learning has gained in popularity at colleges and universities throughout the nation, it has become increasingly apparent that to enhance student success, service-learning must be imbedded in the academic curriculum. Recent studies attempting to explore such effects have shown positive results (Astin, 1996; Cohen & Kinsey, 1994; Markus et al., 1993). However, more research is needed as some of the findings were challenged.

Student retention is the theory upon which this study was based since students cannot be successful unless they remain in school. This is especially relevant for community college students who are more easily discouraged than university students and more likely to drop out for a variety of reasons, some unrelated to their academic studies. Student retention is said to be affected by student effort, academic integration,

and student involvement. Building on previous theories, Tinto theorized that retention tends to be a result of positive encounters with an institution's academic and social systems (Pascarella & Terenzini, 1991, p. 51).

Tinto's Student Integration Model was selected as the theoretical basis for this study due to its relevance to a student's tendency to remain enrolled. However, since most of Tinto's research was based on traditional students, it is important to confirm his model with studies such as this one to substantiate that it also pertains to students attending community colleges.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction

The purpose of this study was to explore the relationship between service-learning participation and academic success, as measured by course grade, course completion, and other factors, in selected courses in an urban community college setting. In addition, the study examined the participating faculty members to determine motivations and reactions to their participation in the study and their perceptions of the students in the control group as compared to the students in the treatment group. This chapter discusses the methodology, instrumentation, research design and statistical analysis used in the study.

Research Methodology

This study involved data collection using college records, faculty records, focus groups, personal interviews, and survey instruments. One instrument assessed faculty expectations about the outcomes of the experiment, another assessed faculty reflections at the end of the term, and the third instrument assessed students' attitudes toward the course, the instructor, their perceived level of effort, and the grading system.

Selection of Subjects

Since the study was based on the willingness of faculty to participate and the courses they were scheduled to teach Fall term, the students in the sample were selected through the courses in which they enrolled. A total of seven faculty members agreed to participate in the study. Two classes were included for each faculty member with the exception of one, who agreed to have four of his classes included in the study. Thus, there were 16 sections in the study, comprising five different course subjects as follows:

<u>No. of Sections</u>	<u>Course</u>
6	ENG0010 College Preparatory Writing I
2	ENS1241 Developmental Composition I
2	ENC1201 Phonetic American English
2	SYG2010 Social Problems
4	AMH 2020 American History.

Population and Sample

The subjects for this study were college students enrolled in selected courses taught at Broward Community College (BCC), during the 1996 Fall term. The college's multicultural, multiethnic student population closely mirrors the diversity of South Florida's population of residents over 18 years of age which is 76% White, 13.5% Black, 8.7% Hispanic, and 1.6% others (Florida 1996 Census Report). Like other community colleges, BCC students are older, work part-time or full-time, attend classes part-time,

and typically have family responsibilities in addition to their academic studies. The average age of BCC students is 29, with females making up 58% of the student body and males representing 42% (BCC Fall 1996 Enrollment Records).

The study began with a sample of approximately 432 students enrolled in various disciplines. The faculty members were selected based on their willingness to participate in the project and whether they were scheduled to teach two sections of the same course during the Fall 1996 term.

Although several sources of variability might have been eliminated or diminished by restricting the study to one discipline rather than including courses in different disciplines, the advantages of increasing the sample size by opening the study to various disciplines, outweighed the disadvantages. By using a greater number of students, and including a variety of different disciplines, there was a better chance that the results might support a conclusion that service-learning had a significant impact on the treatment sections in terms of their success in the course.

Research Design

The study used a quasi-experimental nonequivalent control group design. Seven instructors teaching at least two sections of the same course were identified, with each course section containing 20-35 students. One section (the treatment group) of students from each instructor's pair participated in a service-learning experience while the students in the other section (the control group) of each pair did not. Course sections on more than

one campus were included in the study to control for the variable of campus location.

The variable of instructor effect was controlled by using different faculty members, each teaching two sections of a course.

Students were informed that they were participating in a study. Students who did not wish to participate in the research study by performing 20 hours of service, were given the option of switching to a non service-learning section. According to the Encyclopedia of Educational Research (Keeton, 1982), college student subjects should be permitted to refuse to participate or remove themselves from the study at any time without jeopardizing their grade in the course (p. 624).

Students in both groups were assessed by the instructor using the same exams and assignments based on the same course material. Students in both groups were tested using a questionnaire to assess their attitudes about the course material, satisfaction with the course, and perceived level of effort they exerted in the course. The responses of the control sections and treatment sections were compared to ascertain whether there was a significant difference in the responses to these questions based on whether or not they participated in the service experience.

In addition to the student surveys and available quantitative data, participating faculty completed a pre- and post-survey to describe their impressions of student learning between the two groups. During the treatment, faculty took attendance on an intermittent basis to determine if there were any significant differences. To enhance the findings,

focus groups and follow-up interviews were conducted with the participating faculty members to obtain qualitative data.

Controls and Treatments

Students in the treatment section of each pair of courses were required to perform at least 20 hours of meaningful community service and fulfill specific reflection activities determined by the faculty. This component was in addition to the traditional course requirements. The students in the control group of each instructor's pair were taught the traditional course material. Aside from the service-learning experience, instructors were instructed to cover the same material, use the same texts and supplementary materials, and assign the same homework to both groups.

Community Connection offices on each BCC campus serve as clearinghouses for volunteerism and service-learning. Community Connection staff assisted the students in the treatment sections in locating project sites in the community whichever are appropriate to their learning needs and schedules and also acceptable to the instructors. There were a wide variety of service options, e.g., mentoring middle school youngsters, working with the humane society, reading to children in a daycare center, tutoring at-risk youngsters in an after-school program, or painting a social service agency.

Community Connection staff assisted participating faculty by providing orientation in determining learning objectives and techniques for facilitating critical reflection activities. Each faculty member was given a Service-Learning Faculty Manual

that included articles, a reading list, sample course syllabi, and instructions relative to the project. They provided on-going faculty technical support, upon request, throughout the term. Examples of topics included: strategies for incorporating a service-learning component into the course curriculum and assessing reflection activities, e.g., journals, class presentations, small group discussions. Community Connection staff also administered the survey instruments and facilitated the faculty focus groups.

Data

The State of Florida requires entry-level testing for all first-time-in-college (FTIC), degree-seeking students to determine appropriate course placement in English, mathematics, and reading. The Entry Level Assessment reading scores were used to compare the control group and treatment group of each pair to insure that there were no significant differences in ability levels.

Other data were collected as follows:

1. Faculty Beginning-of-Term Questionnaire

A self-report instrument was designed to assess faculty grading policies, perceived student reactions at learning of the service requirement, perceptions of a number of factors, the influence of various factors on the instructor's decision to participate in the service-learning research project, e.g., to impact student success, or improve student motivation, a personal belief in service, professional development (the faculty beginning-of-term questionnaire is attached as Appendix A).

2. Faculty End-of-Term Questionnaire

An end-of-term instrument was designed to assess such factors as faculty perceptions and attitudes toward the service-learning activity in their classes, degree of academic relevance observed, perceived student reactions to the service-learning experience, comparisons between the control sections and treatment sections, and the extent to which the instructor felt the service-learning requirement affected student learning, student success, student motivation, or their own professional development (the faculty end-of-term questionnaire is attached as Appendix B).

3. Student End-of-Term Questionnaire

An end-of-term self-report instrument was designed to capture data regarding students' assessment of various factors, e.g., their attitudes toward the course and the instructor, their motivation and level of effort expended, fairness of the grading policy, their learning of the course material, and their perception of the course in terms of difficulty. Student assessments of the course and instructor were made using questions included in the University of Michigan's Center for Research on Learning and Teaching questionnaire (Markus et al., 1993). The adapted questionnaire also encouraged students to include additional written comments. After the questionnaire was pilot-tested by ten students on two campuses, the instructions were clarified, several questions were revised, and two question were eliminated due to redundancy. The confidential questionnaires were then distributed in classes and mailed to students' home addresses (the student end-of-term questionnaire is attached as Appendix C).

4. Interviews and Focus Groups

During the term a focus group was conducted by Community Connection staff to provide participating faculty members an opportunity to share their experiences in offering service-learning in their classes, several for the first time. One month after the end of the term, in-depth personal interviews were conducted by the principal investigator with the participating faculty to gather qualitative data on their experience during the term.

5. Institutional Records

Institutional records were used to collect data on student demographics, assessment test scores, gender, ethnicity, total term credit load, withdrawal patterns, final course grades, attendance, and course completion rates.

6. Instructor Records

Copies of instructor grade books were used to verify class attendance of individual students.

Procedures

Presentations at faculty meetings, mailings, and flyers were used to offer an opportunity for Broward Community College faculty to participate in the study. Prior to the beginning of the Fall term, orientation sessions were held for interested faculty on North and Central campuses to describe the study and ascertain the level of individual faculty interest. To be eligible to participate in the study, faculty members had to be scheduled to teach two sections of the same course during the Fall term and be willing to require one section to participate in a minimum of 20 hours of community service during

the term. Seven faculty members self-selected to take part in the study. Prior to the first day of class for fall term 1996, one of the sections of each pair was randomly designated as the "service-learning" section, requiring students to engage in at least 20 hours of community service in a wide variety of local community service agencies during the 16-week term.

The students in the treatment section were required to perform the service while the students in the other section of each pair were designated to receive the traditional curriculum. The designations were determined by the principal investigator using a coin toss. Placement at service sites was made in one of several ways: 1) through a direct referral from the Community Connection, 2) by student initiative using a list provided by Community Connection, 3) by student initiative using community resources, or 4) through a site offered by the course instructor.

The student participants were selected based on the courses in which they enrolled. Since they had no prior knowledge during the course registration period about the experiment or the difference in the sections, the potential for self-selection was minimized. Nevertheless, even though the treatment was randomly assigned to the course sections, random assignments cannot be assumed as individual subjects were not randomly assigned to the groups. It cannot be considered a true experimental study, since the students self-selected into specific class sections based on what time of day or night the class was offered, which days of the week and, in some cases, based on the specific faculty member who was scheduled to teach the class.

The control for instructor influence was that both classes of each pair were taught by the same instructor, with one class section taught by each instructor designated as the control group and the instructor's other section of the same course designated as the treatment group. To correct for weaknesses in previous studies (Markus et al., 1993), the participating faculty members were instructed to keep grading in the two sections as comparable as possible as in Kendrick's (1996) study of students in two sections of Introduction to Sociology at the State University of New York's College at Cortland. Miller cautions researchers to insure that the study is not comparing student grades based on two different grading methods (Miller, 1994).

To ensure that there was no significant difference between the two groups, post-registration comparisons were conducted of the sections using class rolls and transcript data to compare such factors as gender, ethnicity, and assessment test scores in Reading and English of the students in the control group against the same data for the students who would receive the treatment. If there had been a significant difference that could have been rectified before the treatment began, students could have been required to switch sections in order to control for those differences. If this was not possible, certain students could have been excluded from the research results or controlled statistically.

At the first class session, the students in the treatment sections were advised by the instructors that a minimum of 20 hours of service was part of the course requirements. Comparisons of drops before the end of the drop/add period ascertained that there was no significant difference between the control group and treatment group.

After staff from the College's Community Connection Department visited each treatment section to orient the class to service-learning and offer various opportunities for work sites, faculty were asked to follow up to insure that the students had arranged their placements by the fourth week of the term. Although work schedules would vary due to differences in student course workload and job responsibilities, the service would average between two to six hours per week for the remaining 12 weeks of the term. The criteria to be used in selecting suitable sites included the following:

1. There was a real community need for the service.
2. The service was course-related and could be accomplished by the student in the particular course in which he or she is enrolled.
3. The service could be completed within 10 to 12 weeks.

The decision to require a minimum of 20 hours of student service during the term was made after consultation with potential faculty participants and Community Connection staff. The primary rationale was that a minimum of 20 hours of service is the requirement for students to receive credit for the experience on their co-curricular transcript.

The students worked in a wide range of service sites (a typology of service projects is attached as Appendix F) including Habitat for Humanity, daycare centers and after school programs, animal shelter, mentoring youngsters, peer tutoring, providing assistive services on-campus for students with disabilities, and many more.

During the term, the Community Connection staff met with all participating faculty members to provide them with technical assistance and guidance as they proceeded with the experiment. The staff made presentations in the treatment sections to provide students with an orientation to community service. They distributed printed listings of potential social service agencies that needed volunteers, and described how students could seek out other service sites. In cases in which school and work schedules prevented placement in off-campus social service agencies, sites were offered on-campus in special programs that serve at-risk populations, e.g., students with disabilities, students needing tutoring, or youngsters in an after-school drop out prevention program. A typology of service projects (see Appendix F) illustrates the variety of service performed by the participating students.

Broward Community College's Student Life Department offers a comprehensive student leadership program that includes weekend retreats in the Florida Keys as a core component of its experiential leadership development training program. To coincide with this study, Student Life and Community Connection staff collaboratively planned a retreat designed to provide an intensive service experience. Plans were made to renovate a day care center in the Keys that was in disrepair. An advance group went to the Keys the prior weekend to prepare the site for the service retreat participants. During the actual retreat, participants painted the center and prepared it for the children and teachers. Students in the treatment sections of the participating sections were encouraged to attend.

Beyond the intrinsic benefits of a pre-planned and well-organized leadership/service-learning experience, this was a way for students in the treatment sections to fulfill seven hours of their course service requirement during the two-day retreat. Approximately 40 BCC students attended the retreat, including 20 who were participating in the study. Post-retreat evaluations were extremely positive. Adding a community service focus to the leadership retreat curriculum proved to be highly worthwhile, with several attendees reporting that the activity motivated them to find ways to contribute to the local community after returning to Broward County.

Two traditional measures of student success and persistence are grades and attendance. Thus, this study involved collecting data on class attendance patterns, final grades, withdrawals, and course completion rates. In addition, a posttest was administered to students in all sections of the control group and treatment group. According to Michele Whitman (1983) trying to attribute a specific outcome (i.e. improved attendance or higher course grade) to the service-learning is to attempt to measure something that is immeasurable. She recommends using multiple measures to 1) provide additional evidence to determine whether it all points to the same conclusion, 2) account for unexpected outcomes, and 3) insure a complete picture from every possible source of information (Whitman, 1983).

The participating faculty members completed a beginning-of-term questionnaire after the start of the term. During the term, faculty members were invited to a luncheon/focus group to reflect on their experiences in the experiment. At the end of the

term, they completed an end-of-term questionnaire. Because of the emphasis on service-learning programs being individualized, a single scale of measurement is often insufficient to capture the essence of the complex programs and partnerships that evolve (Whitman, 1983). For this reason, the written faculty end-of-term questionnaires were followed by one-on-one interviews to gather additional qualitative data to enhance the study.

Data Collection

The primary unit of analysis in this study was the student. According to Pascarella and Terenzini (1991), "when individuals are the unit of analysis...the question is typically whether differences in individual students' collegiate experiences (for instance, academic major, extracurricular involvement, interaction with faculty) lead to differences in specified outcomes" (p. 683). The secondary unit of analysis was the course instructor. This was based on the need to be able to show whether there was a significant effect on the outcome for a class section based on instructor effects, e.g. presentation of the requirement, follow up, and expectations.

At the start of the term, class rolls for each section were reviewed to determine student names and social security numbers. Academic transcripts were obtained for all students in each section who were still enrolled at the end of the drop/add period. The transcripts provided information as to the total number of credits enrolled, and entry level test scores in reading and English. The mainframe was accessed manually (on a student-

by-student basis) to determine the ethnicity and gender of each student. After the term began, participating faculty each completed the Faculty Beginning-of-Term Questionnaire (see Appendix A), a Likert-type survey in which they reported on such items as faculty prediction of the academic relevance of the service projects, their personal reasons for participating in the service-learning research project, their perceptions of the student reactions upon learning of the service requirement, and a description of their grading policies. In Likert scales the respondent is asked to indicate strong disagreement (SD), disagreement (D), neutrality (N), agreement (A), or strong agreement (SA) with each statement (Likert, 1932). For the beginning-of-term faculty questionnaire, a 5-point Likert scale attributing the following point values to the statements: SD=1, D=2, N=3, A=4, SA=5.

The instructors were asked to take roll throughout the term to obtain attendance data. Student End-of-Term Questionnaires (see Appendix B) were administered at the end of the term during a regular class period wherever possible, otherwise they were mailed to students at their permanent addresses after the term ended. At the same time faculty completed a post-survey to report on their perceptions of student performance in both the control group and treatment group, perceived level of effort expended by the students, and actual perceived level of academic relevance.

Schedule of Activities

August - September 1996

Prior to the beginning of the Fall term, faculty members on all campuses of Broward Community College were invited to participate in the study. To be considered eligible, instructors had to be scheduled to teach two sections of the same course during that term. Using volunteer instructors on two of BCC's four campuses, the study was conducted using a quasi-experimental design, to study class sections of non-equivalent groups in selected disciplines, on two class sections per instructor. The samples were compared to insure that there were no significant differences in terms of race, gender, and ability as determined by entry level test scores for Reading and English. A beginning-of-term questionnaire was administered to the participating faculty.

September - December 1996

The subjects in one of the class sections taught by each instructor, participated in a service-learning experience while the subjects in the other sections were taught in the traditional manner. Information on attendance, exam grades, and withdrawals were compiled.

December 1996

Prior to the end of the term, post-treatment end-of-term questionnaires were administered to faculty and students.

January - March/April 1997

The data were analyzed and conclusions drawn.

Summary

The study consisted of 286 students enrolled in six paired courses taught by five instructors at Broward Community College in the Fall term of 1996. One section of each pair (the control group) was taught using traditional subject matter and course materials, and the other section of each pair (the treatment group) participated in a 20-hour required service-learning activity in addition to the regular course curriculum. Faculty were invited to participate in the study. The courses in the study included American History, Sociology, College Preparatory English, and Introduction to English Composition.

A quasi-experimental nonequivalent control group design was used to examine the effects of the service-learning experience on the students. Both groups of students were assessed by the instructors using the same exams and assignments. Instructors provided data on student attendance. Withdrawals, course grades, and course completion data were obtained from official college records. A post-term survey was administered to the students to assess their attitudes about the course material, satisfaction with the course and perceived level of effort they exerted in the course. In addition to the student data, participating faculty were assessed using focus groups, a beginning-of-term survey, an end-of-term survey, and personal interviews to examine faculty attitudes about the course sections and their experience.

CHAPTER IV

DATA ANALYSIS

Introduction

In this chapter, the statistical analyses of the data collected are presented according to the procedures described in Chapter III. The purpose of this study was to examine the effects of a service-learning experience on student success at an urban community college. Data for this study were collected utilizing Faculty Beginning-of-Term Questionnaires (see Appendix A), Faculty End-of-Term Questionnaires (see Appendix B), faculty records, interviews with participating faculty, Student End-of-Term Questionnaires (see Appendix C), and college records.

Participant Profile

The data analyzed were based on 286 community college students enrolled in 12 sections of five different subjects taught by five instructors during the Fall term 1996. Students in six of the sections were required to perform 20 hours of service in addition to the traditional requirements (treatment groups) and students in the other six sections were taught in the traditional manner (control groups). Each instructor was teaching at least two sections with one section receiving the treatment and the other section in the pair serving as a control, or comparison, group.

At the beginning of the study, an initial student data file of 432 students in 16 sections was created. The following variables were included: student name, social security number, ethnicity, gender, reading ability, English ability, course section, and designation as to whether they were enrolled in a control or treatment section. Ability in reading and English were based on the results of entry level tests, using state mandated cut-off scores.

Cross tabulations were performed on subject demographic variables of the treatment and control groups to determine whether there were any significant differences in the characteristics of the two groups that would cause the assumption of random assignment into course sections to be rejected. These comparisons revealed that the groups were not significantly different in regard to the variables of ethnicity, gender, reading ability, and English ability.

Individual interviews with the participating faculty members one month into the study revealed that, in two of the course pairs, only a few of the students in the treatment group had actually obtained a service assignment. This made it necessary to eliminate the two sections taught by instructor #3 and the two sections taught by instructor #5 from the data analysis since the majority of the students in their treatment sections did not actually participate in a service-learning experience.

The remaining course pairs were again compared on each of the variables using Chi-Square tests to analyze the discrete variables. There were no significant differences

between aggregate treatment and control groups on reading or English ability, ethnicity, or gender. The results of this analysis are contained in Table 1.

After the term ended, the grades were keypunched from instructor class rolls and merged with the initial student data file. The grades were converted from letter grades (A, B, C, etc.) to their numerical equivalents A=4, B=3, C=2, D=1, F=0 and XF=0 (the XF grade is a failure due to excessive absences).

Copies of relevant pages from course grade books for the 12 sections were collected from the five instructors. Students who withdrew from the course were eliminated, then absences were tallied for each remaining student. The number of absences for each student was transferred from the grade book to the student data base. The student end-of-term questionnaires were keyed in with a faculty code, course number and a treatment/control indicator. The questionnaire results were entered as coded on the form. Normally, for the purpose of easy interpretation, the percentages would be calculated and the significance of the difference in the distribution of answers between the control and treatment group would be determined utilizing a Chi-Square test. All tests were declared significant at $p < .05$. At a .05 probability level chances are 5 out of 100 that the difference occurred by chance alone.

However, due to the small cell sizes, t-tests were used in analyzing the data on the end-of-term student questionnaires in this study to maintain enough power.

Table 1

Comparison of Students in the Treatment Sections With Students in the Control Sections
for Gender, Ethnicity, Reading Ability, and English Ability

Variables	Treatment		Control		χ^2	p -Value
	n	%	n	%		
Reading Ability						
College Level	49	46.0	53	44.0		
College Preparatory	58	54.0	67	56.0		
Total	107	100.0	120	100.0	.061	.806
English Ability						
College Level	50	40.0	48	37.0		
College Preparatory	75	60.0	83	63.0		
Total	125	100.0	131	100.0	.305	.581
Ethnicity						
White	80	60.0	75	52.0		
Black	18	13.0	26	18.0		
Hispanic	31	23.0	38	26.0		
Other	5	4.0	5	4.0		
Total	134	100.0	144	100.0	1.969	.579
Gender						
Female	79	59.0	84	58.0		
Male	55	41.0	60	42.0		
Total	134	100.0	144	100.0	.003	.958

$p < .05$

Tests of Null Hypotheses

Hypothesis 1

The first hypothesis states that there is no difference in withdrawals during the drop/add period between students in the control section and students in the treatment section for each pair of courses. Treatment sections of each course pair were expected to have a lower percentage of withdrawals during the drop/add period than control sections of each course pair.

Chi-square analysis for hypothesis 1.

Withdrawal rates were determined by comparing first day class rolls with class rolls as of the last day of the College's drop/add period. The withdrawal rates were compared between section pairs using a Chi-Square test. The results of the test of the first hypothesis, showing the withdrawal rate during the drop/add period for each of the course pairs, are contained in Table 2. Withdrawal rates ranged from 0 to 21.7%, 2.8% to 20.8% for the treatment group, and 9.9% to 21.7% for the control group. The p-Value column indicates whether the difference in the withdrawal rate during the drop/add period between the control and treatment sections of each course pair was significant at the $p < .05$ level based on a Chi-Square analysis.

The results demonstrate that there was no significant difference in the withdrawal rates during the drop/add period between the treatment and control sections of any of the

course pairs. The results for the combined treatment and control group summed across all sections are contained in Table 7 and discussed under Hypothesis 6.

Table 2

Comparison of Treatment and Control Sections for Number of Withdrawals During the Drop/Add Period (Hypothesis 1)

Course	Treatment			Control			χ^2	p-Value
	Initial Enroll.	Number Drops	Percentage Drops	Initial Enroll	Number Drops	Percentage Drops		
ENC 0010 ^a	29	1	3.4	29	0	0.0	1.018	.313
ENC 0010 ^b	25	3	12.0	23	5	21.7	.818	.366
ENS 1241	25	2	8.0	26	1	3.8	.397	.529
SYG 2010	24	5	20.8	30	6	20.0	.006	.940
AMH 2020	71	2	2.8	72	1	1.4	.355	.551
OVERALL	174	13	7.5	180	13	7.2	.008	.928

^a Instructor 1 ^b Instructor 4

$p < .05$

Summary of hypothesis 1.

The first hypothesis stated that there is no difference in withdrawals during the drop/add period between students in the control section and students in the treatment section for each pair of courses. The hypothesis failed to be rejected for any of the course pairs since none of the Chi-Square tests were significant at the $p < .05$ level. Therefore, there is not sufficient evidence from this study to conclude that service-learning participation affects student withdrawal rates.

Hypothesis 2

The second hypothesis states that there is no difference in class absences between the students in the control section and students in the treatment section for each pair of courses. Students in the treatment section of each course pair were expected to have a lower number of class absences than students in the control section of each pair.

Independent samples t-test analysis for hypothesis 2.

The number of hours missed were determined by tallying the number of absences shown in the instructor grade books for each student in the treatment and control sections. There was a difference in hours per class between sections that had classes on Monday, Wednesday, and Friday and classes that met on Tuesday and Thursday. To account for this difference, student absences in Tuesday/Thursday sections were multiplied by 1-1/2 to reflect actual hours missed. The number of hours of absences were then compared

using independent samples t-tests. The results of the test of the second hypothesis, showing the average number of hours missed for each of the course pairs are contained in Table 3. The mean number of hours missed ranged from 1.64 to 7.68, with the treatment group ranging from 3.09 to 5.21 and the control group ranging from 1.64 to 7.68. The p-Value column indicates whether the difference in student attendance between the control and treatment sections of each course pair was significant at the $p < .05$ level based on a t-test analysis. The results demonstrate that there was no significant difference in hours missed between the students in the control sections and students in the treatment sections.

The results for the combined absences of the treatment and control group summed across all sections are contained in Table 7 and discussed under Hypothesis 6.

Summary of hypothesis 2.

The second hypothesis stated that there is no difference in class attendance between students in the control and treatment sections for each pair of courses. The hypothesis was rejected for one of the course pairs at the $p < .05$ level. We can therefore conclude that service-learning participation affected class attendance in at least one of the course pairs.

Hypothesis 3

The third hypothesis states that there is no difference in course completion rates between students in the control section and students in the treatment section for each pair of courses. Students in the treatment section of each course pair were expected to have a higher rate of course completion than the students in the control section of each pair.

Table 3

Comparison of Students in the Treatment Sections With Students in the Control Sections for Absences (Hypothesis 2)

Course	<u>Treatment</u>			<u>Control</u>			t	p-Value
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>		
ENC 0010 ^a	21	3.48	3.86	19	11.50	14.87	2.39	.022*
ENC 0010 ^b	8	4.75	5.82	8	2.63	4.15	.84	.415
ENS 1241	23	3.09	3.04	25	1.64	2.18	1.91	.063
SYG 2010	19	3.32	4.30	27	2.81	3.21	.45	.653
AMH 2020	67	4.04	7.71	68	4.65	7.15	.48	.630
OVERALL	138	3.74	6.06	147	4.58	7.91	1.01	.316

^a Instructor 1 ^b Instructor 4

p < .05

Chi-square analysis for hypothesis 3.

Student course completion was determined by whether or not a grade was awarded to each student on the final grade roll submitted to the Office of the Registrar by the instructor. Treatment sections of each course pair were expected to have a higher rate of course completion than control sections. The completion rates were compared using a Chi-Square test. The results of the test of the third hypothesis, showing the rate of course completion for each of the course pairs, are contained in Table 4. The percentage of course completions ranged from 72.4% to 100%, with the treatment group ranging from 76% to 100% and the control group ranging from 72.4% to 97.2%. The results demonstrate that there was no significant difference in the completion rates between the treatment and control sections of any of the course pairs.

The results for the combined treatment and control group summed across all sections are contained in Table 7 and discussed under Hypothesis 6.

Summary of hypothesis 3.

The third hypothesis stated that there is no difference in course completion rates between control and treatment sections for each pair of courses. The hypothesis failed to be rejected since there was no significant difference in course completion rates using Chi-Square tests at $p < .05$. Therefore, there is not sufficient evidence from this study to conclude that service-learning participation affects course completion rates.

Table 4

Comparison of Students in the Treatment Sections with Students in the Control Sections.Course Completion (Hypothesis 3)

Course	Treatment		Control		χ^2	p-Value
	Initial Enrollment	Percentage Completion	Initial Enrollment	Percentage Completion		
ENC 0010 ^a	29	82.8	29	72.4	.892	.345
ENC 0010 ^b	25	76.0	23	82.6	.317	.573
ENS 1241	25	100.0	26	96.2	.981	.322
SYG 2010	24	79.2	30	93.3	2.37	.124
AMH 2020	71	94.4	72	97.2	.725	.394
OVERALL	174	88.5	180	90.6	.397	.529

^a Instructor 1 ^b Instructor 4

p < .05

Hypothesis 4

The fourth hypothesis states that there is no difference in post-treatment final course grades of students in the control section and students in the treatment section of each pair of courses. Students in the treatment section of each course pair were expected to earn higher final course grades than students in the control section of each pair.

Independent samples t-test analysis for hypothesis 4.

After converting letter grades to their numerical equivalents, and eliminating no grades (NGs), withdrawals and incompletes, the mean grades for the course pairs were compared using independent samples *t*-tests. During end-of-term interviews with the participating instructors, it was determined that seven students in one of the AMH 2020 sections did not, in fact, perform the required 20 hours of community service. Data for the seven students were eliminated from the analysis.

Final mean course grades for the treatment groups were higher in 4 out of the 5 courses including both ENC 0010 course pairs, SYG 2010 and AMH 2020. The final mean grade for the AMH 2020 treatment group (3.13) was significantly higher than the mean grade for the control group (2.66) at the $p < .05$ level. However, the AMH 2020 instructor had taught two course pairs in the study, therefore the course grades for the four sections were combined. To ensure that this did not skew the results, four independent samples *t*-tests were conducted to compare each AMH 2020 treatment section with each AMH 2020 control section to insure that the significant difference was

not due solely to the larger sample size. These results showed that in all four of the possible comparisons of the four AMH 2020 sections, the mean grade of the treatment group was higher than the mean grade of the control group, and in one pair it was significantly higher at the $p < .05$ level.

The results of the test of the fourth hypothesis, showing the post-treatment course grades for each of the section pairs, are contained in Table 5. The results for the combined treatment and control group summed across all sections are contained in Table 7 and discussed under Hypothesis 6.

Table 5

Comparison of Students in the Treatment Sections with Students in the Control Sections for Final Course Grades (Hypothesis 4)

Course	Treatment			Control			t	p-Value
	n	M	SD	n	M	SD		
ENC 0010 ^a	21	2.14	.65	19	1.79	.54	1.86	.071
ENC 0010 ^b	8	2.38	.74	8	2.25	.46	.40	.693
ENS 1241	22	1.64	1.02	21	1.95	.74	-1.17	.250
SYG 2010	18	3.22	.88	27	2.89	.97	1.17	.250
AMH 2020	62	3.10	1.00	65	2.63	1.23	2.33	.020*
OVERALL	131	2.70	1.09	140	2.44	1.08	2.25	.025*

^aInstructor 1 ^bInstructor 4

* $p < .05$

Summary of Hypothesis 4

The fourth hypothesis stated that there is no significant difference in post-treatment final course grades between students in the control section and students in the treatment section for each pair of courses. The hypothesis is rejected for American History (AMH 2020), since the mean final course grade in the treatment group was

significantly higher than the mean final course grade for the control group. We can, therefore, conclude that students in at least one of the service-learning courses made significantly higher grades than students in the control sections.

Hypothesis 5

The fifth hypothesis states that there is no significant difference in student end-of-term course evaluation data including such factors as attitudes toward effort, motivation, and learning, and satisfaction with the course, the instructor, the reading assignments, and the grading system, between the students in the control section and students in the treatment section for pair of courses. Due to the low return rates of student questionnaires, the individual course pairs contained too few subjects to be analyzed as individual course pairs. The results for the combined end-of-term course evaluation data for the treatment group and control group summed across all sections are presented in Table 7 and discussed under Hypothesis 6.

Hypothesis 6

The sixth hypothesis states that there is no difference between the aggregate control and treatment groups for any of the following factors: withdrawal rate during the drop/add period, class absences, course completion rates, final course grades, and student end-of-term evaluation data, including attitudes toward effort, motivation, and learning, and

satisfaction with the instructor, the course, the reading assignments, and the grading system.

Students in the overall treatment group were expected to have a lower rate of withdrawals during the drop/add period, a better record of class attendance, higher final course grades, a higher rate of course completion, and, on end-of-term course evaluation data, higher self-reported assessment of effort, motivation, and learning in the course, and higher levels of satisfaction with the instructor, the course, the reading assignments, and the grading system, than students in the control group.

Chi-square and t-test analyses for hypothesis 6.

Independent samples t-tests and Chi-Square tests were used to analyze student withdrawals during the drop/add period, class absences, course completion rates, final course grades, and the results of the student end-of-term questionnaires. These results are contained in Table 7. Table 7 is arranged in clusters by subject and each cluster is arranged in order of the significant differences between the treatment and control sections.

The results for the combined comparison of the withdrawals during the drop/add period for the students in the treatment and control groups are contained in Table 7. In the combined treatment sections 7.5% of the students withdrew during the drop/add period as compared to 7.2% in the combined control sections. These results indicate that, overall, there was no significant difference in withdrawals during the drop/add period

Table 6
Responses to Student End-of-Term Questionnaire (Hypothesis 6)

Question	Group	Strongly Agree	2	3	4	Strongly Disagree	t	P-Value
		%	%	%	%	%		
I. Instructor Satisfaction								
12. The instructor's preparation was satisfactory.	T	64.3	0.0	3.6	32.1	0.0	4.79	.001***
	C	17.2	10.3	0.0	72.4	0.0		
11. The instructor was receptive to discussion outside class.	T	50.6	1.2	12.9	35.3	0.0	3.52	.001**
	C	14.3	3.6	21.4	57.1	3.6		
7. The instructor showed a genuine concern for the students.	T	65.9	1.2	4.7	25.9	2.4	2.89	.005**
	C	34.5	13.8	10.3	41.4	0.0		
10. The instructor made class interesting.	T	63.5	5.9	5.9	23.5	1.2	2.67	.010*
	C	29.6	11.1	11.1	44.4	3.7		
2. Overall the instructor was an excellent teacher	T	70.6	3.5	3.5	18.8	3.5	2.0	.048*
	C	37.9	13.8	3.4	44.8	0.0		
8. The instructor delivered clear, organized explanations.	T	65.9	2.4	4.7	25.9	1.2	1.95	.060
	C	42.9	3.6	7.1	42.9	3.6		
Overall Instructor Satisfaction							6.87	.001**
II. Grading Satisfaction								
5. Grading was a fair assessment of my performance in this class.	T	48.8	3.6	8.3	35.7	3.6	2.67	.010*
	C	19.2	7.7	19.2	46.2	7.7		
9. The grading system was clearly defined	T	61.2	2.4	2.4	32.9	1.2	2.19	.030*
	C	34.5	6.9	6.9	51.7	0.0		
15. Exams covered the important aspects of the course.	T	52.4	3.6	4.8	38.1	1.2	2.21	.030*
	C	35.7	10.7	10.7	39.3	3.6		
Overall Grading Satisfaction							3.99	.001*
III. Overall Satisfaction								
1. Overall, this was an excellent course	T	54.8	3.6	7.1	31.0	3.6		
	C	20.7	13.8	10.3	55.2	0.0	2.22	.029*
IV. Motivation								
14. Reading assignments were interesting and stimulating.	T	36.9	3.6	22.6	34.5	2.4	1.08	.028*
	C	20.7	6.9	0.0	62.1	10.3		
16. I felt motivated to learn.	T	57.6	3.5	5.9	30.6	2.4	1.84	.070
Overall Motivation							1.94	.054
17. Class discussions were interesting and stimulating.	T	49.4	3.5	7.1	40.0	0.0	1.77	.080
	C	37.9	13.8	6.9	41.4	0.0		
V. Learning								
13. I learned a great deal in this course.	T	50.6	2.4	7.2	38.6	1.2		
	C	34.5	10.3	6.9	44.8	3.4	1.99	.049*
VI. Effort								
3. The instructor motivated me to my best work.	T	57.1	4.8	2.4	32.1	3.6	1.55	.120
	C	37.9	3.4	10.3	41.4	6.9		
6. This course required more work others of equal credit.	T	11.9	17.9	36.9	20..	13.1	1.53	.130
	C	3.7	11.1	44.4	40.7	0.0		
4. I feel that I performed up to my potential in this course.	T	31.8	8.2	17.6	42.4	0.0	.11	.910
	C	37.9	10.3	6.9	41.4	3.4		
Overall Effort							1.76	.860
p < .05 ** p < .01 t=85n c=29n								

Table 7

Comparison of Aggregated Groups of Students in the Treatment and Control Sections for Withdrawals During the Drop/Add Period, Absences, Course Completion Rate, Final Course Grades, and Student End-of-Term Evaluation Data (Hypothesis 6)

Chi-Square Analyses Results

Variable	Treatment		Control		χ^2	p-Value
	n	%	n	%		
Drops during Drop/Add Period	174	7.5	180	7.2	.008	.928
Course Completion	174	88.5	180	90.6	.397	.529

Independent Samples t-Test Results

Variable	Treatment		Control		t	p-Value
	M	SD	M	SD		
Absences	4.08	6.06	3.88	7.91	1.01	.316
Final Course Grade	2.70	1.09	2.44	1.08	2.25	.025*

Student End-of-Term Survey Data

I. Instructor Satisfaction	4.49	.82	3.96	.08	6.87	.001**
II. Satisfaction with Grading System	4.37	.875	3.90	1.04	3.99	.001**
III. Overall Satisfaction with Course	4.30	1.00	3.83	.93	2.22	.029*
IV. Self-Reported Motivation	4.18	.90	3.90	1.10	1.94	.054
V. Self-Reported Learning	4.35	.82	3.97	1.09	1.99	.049*
VI. Self-Reported Effort	3.77	1.18	3.80	1.04	.176	.860

* $p < .05$

** $p < .01$

between students who participated in a required service-learning experience as part of a college course and those who did not.

The overall results of the comparison of class absences for the students in the treatment and control groups are contained in Table 7. The combined treatment sections averaged 3.28 hours missed as compared to an average of 3.33 hours missed in the combined control sections. These results indicate that, overall, there is no significant difference in absences for students who participated in a required service-learning experience as part of a college course and those who did not.

The overall results of the comparison of the course completion rates for the students in the treatment and control groups are contained in Table 7. In the combined treatment sections, 88.5% of the students completed their course as compared to 90.6% in the combined control sections. These results indicate that, overall, there is no significant difference in course completion rates for students who participated in a required service-learning experience as part of a college course and those who did not.

The results for the combined comparison of the post-treatment final course grades received by students in the treatment and control groups are contained in Table 7. The average final course grade for the combined treatment group was 2.70 as compared to an average grade of 2.44 for the combined control group. These results indicate that, overall, students who participated in a required service-learning experience as part of a college course achieved significantly higher course grades than students who did not.

The students in the treatment section of each pair were expected to demonstrate a significant difference in end-of-term evaluation data, including self-reported attitudes toward effort, satisfaction with the instructor, the course, the reading assignments, and the grading system, than the students in the control section of each pair.

The mean score is an average derived from assigning point values to 5-point Likert scale responses to the 17 questions using the following point values to the statements: Strongly Disagree=5, Disagree=4, Neutral=3, Agree=2, and Strongly Agree=1. The p-Value column indicates whether the difference in the response pattern between the control and treatment groups was significant at the $p < .05$ level utilizing a two-tailed independent samples t-test.

The overall results of the comparison of the end-of-term evaluation data for the students in the treatment and control groups are contained in Table 6 and Table 7. These results indicate that, overall, students who participated in a required service-learning experience as part of a college course showed significantly higher levels of satisfaction with the instructor ($p < .001$), the grading system ($p < .001$), the reading assignments ($p < .028$), the course ($p < .029$), and self-reported learning ($p < .049$). However, there was no significant difference in self-reported overall motivation ($p < .054$) or effort ($p < .860$).

Fifty-eight percent of the students in the treatment group agreed or strongly agreed with the statement "overall, this was an excellent course." In responding to items about the instructor, students in the treatment group agreed or strongly agreed that the instructor was "an excellent teacher," "showed genuine concern for the students," "made

the class interesting," and "was receptive to discussion outside the class." In terms of the grading system, the students in the treatment group agreed or strongly agreed that the grading was "a fair assessment" of their performance in the class, and "the grading system was clearly defined." The results for the combined treatment and control group for the end-of-term evaluation data summed across all sections are contained in Table 7.

Summary of hypothesis 6.

The tests of the sixth hypothesis did not produce sufficient evidence to conclude that service-learning participation affects student withdrawal rates, class absences, course completion rates, or self-reported higher rates of effort in the course. However, students in the service-learning courses earned significantly higher grades than students in the control sections and, in end-of-term evaluation questionnaires, reported higher levels of satisfaction with the course, the instructor, the reading assignments, and the grading system than students in the control sections.

Summary of Faculty Evaluation Data

In addition to the above hypotheses, data were collected from the seven participating faculty members to determine motivations and reactions to their participation in the study. Two questionnaires were administered, a focus group and one-on-one interviews were conducted with each of the participating faculty members.

Beginning-of-term faculty evaluation data.

Soon after the term began, a Likert-scale faculty questionnaire was completed by each instructor (see Appendix A). The faculty responses to the Beginning-of-Term Faculty Questionnaire are contained in Table 8. Responses from the faculty members indicated that they perceived the initial reaction of the students in the treatment group toward the service requirement as mostly enthusiastic (72%) and that the service sites were academically relevant (72%). As for the factors influencing the faculty members' decision to participate in the study, most reported that they were influenced by their desire to "try a student learning experiment" (72%), "support student success programs" (71%), and were based on "a personal belief in service" (71%).

The next most important factors influencing faculty participation were "to try a new teaching strategy" (58%), to "be part of a study" (57%), and for their own professional development (57%). The instructors reported that the factor with the least impact on their decision to participate was for recognition (71%).

End-of-term faculty evaluation data.

At the end of the term, each instructor completed an End-of-Term Faculty Questionnaire (see Appendix B). Since the majority of students in two of the treatment sections did not perform service, the questionnaires for Instructor #3 and #5 were

Table 8

Percentages of Faculty Responses to Beginning-of-Term Questionnaire (n=7)

	<u>Apathetic</u>			<u>Enthusiastic</u>		<u>Mean</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
	%	%	%	%	%	
Initial reaction of students	0	14	14	43	29	3.9
	<u>Not Relevant</u>			<u>Relevant</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
	%	%	%	%	%	
Academic relevance of project sites	0	14	14	29	43	4.0
Factors influencing instructor's decision to participate in study:	<u>Least</u>			<u>Most</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
	%	%	%	%	%	
Try a new teaching strategy	14	14	14	29	29	3.4
Be part of a study	43	0	0	43	14	2.9
For recognition	57	14	14	14	0.0	1.9
Try a student learning experiment	14	0	14	29	43	3.9
Support student success programs	0	0	29	14	57	4.3
Due to a personal belief in service	0	0	29	14	57	4.3
For professional development	14	0	29	14	43	3.7

Other comments added as factors influencing faculty member's decision to participate in research study:

"Benefit/relevance to students."

"Personal philosophy to marry students to civic organizations to create change."

"To demonstrate to students the interrelatedness of learning, staff development, and community spirit."

eliminated before responses were compiled and summarized. The faculty responses are contained in Table 9.

The mean score is an average derived from assigning point values to 5-point Likert scale responses for the 13 questions using the following point values for each statement: Strongly Disagree=1, Disagree=2, Neutral=3, Agree=4, and Strongly Agree=5. Mean responses from the five instructors indicated that, in their treatment sections "class discussions were more interesting and more stimulating" ($M=4.2$), the sections seemed "more vital in terms of student involvement" ($M=4.2$), "participation in this research project was a positive experience" ($M=4.0$), the students "seemed more challenged academically" ($M=3.8$), "more motivated to learn" ($M=3.8$), and "seemed to exert more effort toward their performance in the course" ($M=3.6$). More than half of the participating instructors reported that they will offer service-learning "as an option" in future courses ($M=3.8$). The statement that received the lowest mean response was "I will require service-learning participation in future courses" ($M=2.2$).

One month after the term ended, structured personal interviews were conducted with each of the instructors. The purpose of the interviews was to obtain qualitative data and to verify and elaborate on information from the questionnaires. Each interview was taped for subsequent transcription. Nine questions were posed to each instructor. The questions sought information on how the projects were assigned, the quality and relevance of the projects, extent to which the service was integrated into the subject, perceived attendance between the treatment and control section, extent to which

Table 9

Percentages of Faculty Responses to End-of-Term Questionnaire (n=5)

Questions (Arranged according to mean)	Strongly Disagree				Strongly Agree	Mean
	1 %	2 %	3 %	4 %	5 %	
6. Class discussions in the treatment section were more interesting and more stimulating	0	0	20	40	40	4.2
5. The treatment section seemed more vital in terms of student involvement	0	0	40	0	60	4.2
10. My participation in this research project was a positive experience	0	0	20	60	20	4.0
12. I will offer service-learning as an option in future courses	0	20	20	20	40	3.8
3. The students in the treatment section seemed more challenged academically	0	20	20	20	40	3.8
1. The students in the treatment section seemed more motivated to learn	0	0	40	40	20	3.8
2. The students in the treatment section seemed to gain a better understanding of the subject matter	0	20	20	40	20	3.6
4. The students in the treatment section seemed to exert more effort toward their performance in the course	0	20	20	40	20	3.6
8. I felt more inspired as an instructor with the treatment section	0	20	40	20	20	3.4
9. I felt more motivated as an instructor with the treatment section	0	20	40	20	20	3.4
11. I believe my colleagues should add service-learning to their courses	0	0	60	40	0	3.4
7. Teaching the students in the treatment section was a more rewarding experience than teaching the control group	20	20	20	20	20	3.0
13. I will require service-learning participation in future courses	40	20	20	20	0	2.2

the service affected the course grade, how the service projects compared, how service should be offered in future classes, and a summary of the overall experience of participating in the research study. The instructors were also asked to evaluate the support that they received from the Community Connection staff during the term. (Notes of the responses from the faculty interviews are included in Appendix G.)

Summary

The data indicate that, overall, students who participated in a class in which service-learning was a requirement, achieved higher final course grades and reported greater satisfaction with the course, the instructor, the reading assignments, and the grading system. There was no significant difference in withdrawals within the drop/add period, class attendance, course completion rates, or self-reported level of effort. In addition, the participating faculty members reported that, in the treatment sections, class discussions were more stimulating, the sections seemed more vital in terms of student involvement, the students seemed more challenged academically, more motivated to learn, and seemed to exert more effort in the course. Although the faculty reported that they would offer service-learning as an option in future courses, they did not agree that they would choose to offer it as a requirement. Achieving higher course grades and reporting greater satisfaction with the course are both compelling arguments in support of offering service-learning options in college courses.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary, Conclusions, and Implications for Future Research

This study has attempted to contribute to the relatively sparse literature on the academic effects of service-learning by exploring the effects of a service-learning experience on student success as measured by class attendance, course completion, final course grades, and end-of-term evaluation data. A secondary purpose of the study was to examine the perceptions and attitudes of the participating faculty toward the study.

Most of the previous studies on service-learning have focused on its effects on personal development, ethical values, and self-esteem. There have been relatively few studies on academic effects. Of the studies that have been done on the effects of service-learning on academic outcomes, most were conducted at selective four-year universities where the majority of students were recent high school graduates, attended full-time, and resided on campus. Thus, there is limited research on the effects of service-learning on non-traditional students attending community colleges, or on students enrolled in college preparatory courses.

Service to the community has many positive outcomes, e.g., improving one's ethical values, increasing self-esteem, providing needed services to the community, enhancing career preparation, and upgrading job skills. However, the primary mission of institutions of higher education is for students to be academically successful. Success, for

the purposes of this study, was measured by class attendance, course completion, final course grade, and level of student effort. Based on the data, it was concluded that students who participated in a class in which service-learning was a requirement achieved higher final course grades, and reported greater satisfaction with the course, the instructor, the reading assignments, and the grading system. Despite the findings not offering conclusive evidence as to the effect of service-learning on student success, this study confirms the conclusions of Pascarella and Chapman (1983) based on applying Tinto's model to non-residential college students, that "commitment to the institution...is defined largely by successful and personally-satisfying interactions with the academic rather than the social systems of the institution" (p. 95).

The results did not confirm that the service-learning experience had a significant effect on class attendance, absenteeism, course completion, or self-perception of student effort in the course. This contradicts the study by Markus et al. (1993) where a greater percentage of students in the treatment group reported that they had performed up to their potential in the course than students in the control group.

Some students saw the requirement as an unwelcome burden, especially in college preparatory courses that already require a substantial amount of extra laboratory hours. This outcome was disappointing in that it did not confirm an underlying expectation that service-learning might be the key to success for students struggling through required college preparatory courses. Two students who performed poorly actually placed the blame for their low grade on the service requirement. A student who failed Introduction

to Composition felt that service-learning should be voluntary, stating that as a part-time student, she "didn't have time to do 20 hours [of] extra hard work." A student who earned a "C" in College Preparatory English, complained that the instructor "expected way too much" of the class. Due to the low response rate of students, especially students in the control group, the end-of-term evaluation data are not as conclusive as verifiable data such as final course grades, absenteeism, and course completion rates.

In this study, students who participated in the required service-learning activity achieved higher final course grades than students in the non service-learning section. These findings are not consistent with the University of Michigan study (Markus et al., 1993) and the Giles and Eyler study at Vanderbilt (1994), both of which did not show a statistically significant difference in course grades.

In addition to the fact that the mean final course grades were .28 higher for the students in the treatment group, there was also a significant difference in the level of student satisfaction as reported in the end-of-term student questionnaire. In 15 out of 17 end-of-term evaluation criteria, students in the treatment group gave higher ratings to statements concerning satisfaction with the course, the instructor, and their grades in the course. The difference was significant in all three of the criteria related to grades ($p < .05$). Students in the treatment group were more likely to report that their grade was "a fair assessment" of their performance, that the grading system was "clearly defined," and that the exams "covered important aspects of the course."

These findings confirm Robinson's (1975) study of community college students enrolled in a social science course. The students in the community service-oriented curriculum reported greater satisfaction with the course than students in the traditional curriculum. Also, the finding that students who participated in a service-learning experience earned higher grades is especially notable in view of Pascarella and Chapman's findings (1983) that the first quarter GPA is the single most important factor contributing to student persistence. Students cannot succeed in college unless they continue their enrollment. Contrary to expectations, participating students did not report a significant difference in their perception of their level of effort in the course as evidenced by their rating of the statements "I feel I was performing up to my potential in this course" and "the instructor motivated me to do my best work." This result was particularly disappointing in light of the overwhelming body of evidence pointing to the importance of the "quality of effort" that students invest as a determinant of student success (Pace, 1984).

Students in the treatment group did not self-report higher levels of perceived effort despite achieving higher course grades. Nevertheless, 80% of the participating faculty reported that the "students in the treatment section seemed to exert more effort toward their performance in the course." This difference may be attributed to students in the treatment section underestimating their individual level of effort because the work may have "seemed" easier, more interesting, fun, or less like "work," in spite of an actual

increase in their level of effort, as measured by higher grades and faculty perception of their effort.

The analysis of the faculty end-of-term questionnaires indicated that 60% of the participating faculty agreed or strongly agreed that, in comparing the control section with the treatment section of the same course, the service-learning students seemed to be more motivated to learn, seemed to gain a better understanding of the subject matter, seemed more challenged academically, and seemed to exert more effort toward their performance in the course. This contradicted the student end-of-term questionnaires where there was no significant difference in self-reported increased level of effort for the treatment group. Another important finding of the faculty end-of-term questionnaire was that 80% of the participating faculty agreed or strongly agreed that class discussions in the treatment section were more interesting and stimulating, and that their own participation in the research project was a positive experience. Additional research can explore the instructional styles of faculty as well as the effect of faculty motivation on student outcomes.

When students have discretion as to whether or not to choose service-learning when it is offered as a course option, or know prior to enrolling in a course that it contains a service-learning requirement, it is difficult to know whether gains are a result of the student's initiative and motivation, are more aptly attributable to their willingness to voluntarily participate, or are truly an effect of the treatment. Whereas previous studies may have been tainted by the effect of students self-selecting, in this study

students had no prior knowledge of the service requirement when they enrolled in the course.

Unless there is a definite linkage between the subject matter of the course and the nature of the community service placement, the activity may be of value to the community and the student, but of little value academically. Future research should focus on how the service component can improve actual learning in the specific discipline by extending, challenging, or motivating learning.

Community service interventions range from weak to strong (Giles & Eyler, 1994). An example of a "weak" experience would be a one-day beach clean-up, while an example of a "strong" service experience would be tutoring an at-risk youngster for a full academic term. There are also differences between group projects and individual service activities. The responsibility for approving the volunteer sites in this study was the purview of each instructor. Several did not exercise sufficient oversight of the service projects to adequately monitor student choices in terms of educational value or community need. Some of the students had placements of questionable value academically, such as baby-sitting a disabled sibling or returning to the high school they graduated from, whereas other students had intensely meaningful experiences serving people in community service settings. Despite the fact that some of the service projects were not carefully selected (Bringle et al, 1996), the impact on grades and student satisfaction were significant. Future studies that control the content of the service projects and integration into course material through structured reflection should show

even higher levels of significance. More research is needed to explore differences in the effects on student success between experiences of various intensity and duration.

Reflection is a key component in providing students with a method of connecting the service experience with academic learning. Due to the variety of courses and instructors, the study was limited in that there was a lack of consistency in terms of the methods of reflection used. Several instructors required journals, others had in-class presentations and discussions, some used small group processing, and some based the final examination on reflective writing. In view of the importance of reflection and its role in connecting learning to the service experience, inconsistency between instructors can affect student outcomes. Class time devoted to structured reflection should be uniform so that students in all treatment sections have the same opportunity to integrate their out-of-class experiences with the course material. Such recommendations are consistent with the conclusions of other service-learning researchers (e.g., Barber 1992; Hedin, 1989 cited in Markus et al., 1993, p. 417). There have been a few studies that examined the value of various types of reflective learning. Additional research is needed to compare the relative significance of different types of reflection on student learning.

Several of the participating faculty reported that attendance patterns are more affected by the class schedule than other factors. Attendance, they have found, is better in Tuesday/Thursday classes than in Monday/Wednesday/Friday classes. Furthermore, with community college students, retention is often affected more by external factors

such as financial, family, and job demands than internal, academic, or programmatic factors (Bean & Metzner, 1985).

One of the instructors observed that students who enroll in early morning sections are more motivated than students who enroll for later classes. Another instructor posited that students in developmental courses that meet in one-hour classes scheduled on Mondays, Wednesdays, and Fridays, do better academically than students in sections that meet for one and one-half hours on Tuesdays and Thursdays. Although she has no data to support her assumption, the instructor expressed her belief that students demonstrate a better retention of covered material when less time passes between classes. Students in the sections that met on Tuesdays and Thursdays, miss four days between their class on Thursday, whereas students in the classes that meet on Mondays, Wednesdays, and Fridays, miss only two days between Fridays and Mondays. It is recommended that future research evaluate retention of subject matter based on different course scheduling options.

Although several of the outcomes are significant, the design of this study did not totally isolate the potential impact of the service-learning component. Therefore, future research is needed to further test the hypothesis that students who are required to participate in a service-learning experience show a significant difference in their perceived level of effort in the discipline.

This study confirms the Michigan study by Markus et al. (1993) which concluded that, although the integration of service-learning into a course curriculum requires a

considerable commitment of time and resources, the resulting enhancement to learning is worth the effort. It is hoped that this study will be replicated with non-traditional student populations at other institutions and in other disciplines to confirm that, in addition to the benefits to the community and the student's personal development, service-learning has a positive effect on student academic success as well.

Implications for Policy and Practice

There are many benefits from students performing community service as part of their collegiate experience, such as helping those in need, serving community needs, learning about themselves and others, and gaining valuable work experience. However, in order for institutions of higher education to advance service-learning to the point where it is embraced by the faculty and administration, its value to student learning must be demonstrated. This study shows that, when service is integrated into the course curriculum, the students benefit in several ways including improved course grades and satisfaction with the course and instructor. Proper integration of a service component into an academic course is not without cost, however. Faculty often feel pressured with the responsibilities of their course load, serving on committees, and conducting research. Before another burdensome assignment is added, relief should be considered in the form of grants, faculty release time, or supplemental pay. Such incentives can inspire faculty to increase their involvement in service-learning, design courses that incorporate service-learning, rewrite their course syllabi, and investigate appropriate service sites and projects. Once they have the opportunity to experience the benefits of an integrated service-learning component firsthand, it will surely be viewed as a valuable teaching pedagogy rather than an onerous chore. Although service-learning may not be appropriate for every college course, it can certainly be adapted to fit nearly every discipline. Financial incentives and time off can serve to encourage faculty to dedicate

the extra time needed to develop new curricula that incorporate service into traditional disciplines.

Since all were volunteers, the faculty participants in this study were self-selected, and therefore self-motivated. In an institutional environment, increased faculty involvement is essential and can be encouraged in a number of ways. It can be as simple as asking faculty to participate. For this study they were invited by the principal investigator. Typically faculty become involved when they are encouraged by their department chair, dean, or the college president (Levine, 1994).

Faculty also need training and professional development to learn the strategies and pedagogy of service-learning. One way to provide needed skills is to offer faculty opportunities to attend orientations, conferences, and workshops where they can learn from the experiences of other faculty members. Such activities can be held regionally or at the same institution. If service-learning is to truly become a part of an institutions' culture, it must be rewarded. Faculty must be properly recognized and acknowledged for their involvement in classroom-based service-learning, preferably in consideration for tenure, promotions, and other academic rewards.

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**BROWARD COMMUNITY COLLEGE
SERVICE-LEARNING
FACULTY QUESTIONNAIRE**

1. Please detail your grading policy.

2. Is service-learning included on your syllabus? (Please return a copy of your syllabus with this questionnaire)

YES ☐ NO ☐

3. Will your service-learners have the same exams and lessons as your control group?

YES ☐ NO ☐

4. What is the nature of your final exam?

5. How will your service-learning students' journals be evaluated and/or graded?

6. How would you rate the general reaction of the service-learning requirement (circle most appropriate ranking):

apathetic
enthusiastic
1 2 3 4 5

7. To what extent do you feel the service assignments are related to the academic course content: (Please utilize the Student Updated Roll sheets, provided by Community Connection as basis for this assessment)

not relative
very relative
1 2 3 4 5

8. To what extent did the following factors influence your decision to participate in the BCC Service-Learning Research Project:

	Least				Most
To try a new teaching strategy	1	2	3	4	5
Being part of a study	1	2	3	4	5
Recognition	1	2	3	4	5
To try a student learning experiment	1	2	3	4	5
In support of Student Success programs	1	2	3	4	5
Personal belief in service	1	2	3	4	5
For own professional development	1	2	3	4	5
Other reasons (please explain on reverse)	1	2	3	4	5

Appendix B
End-of-Term Faculty Questionnaire

**Broward Community College
Service-Learning Research Project
Faculty Survey**

Name _____ Course _____ Campus _____

I have offered service-learning as an *option* in previous courses. Yes ☐ No ☐

Each item below describes your reaction to the two courses you taught this past semester as part of the research project. "Treatment" section refers to the course section for which service-learning was a requirement. Please place an "X" over the appropriate circle for each item. (Feel free to use reverse side for any additional comments.)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	①	②	③	④	⑤
1. The students in the treatment section seemed more motivated to learn	①	②	③	④	⑤
2. The students in the treatment section seemed to gain a better understanding of the subject matter.	①	②	③	④	⑤
3. The students in the treatment section seemed more <i>challenged</i> academically.	①	②	③	④	⑤
4. The students in the treatment section seemed to exert more <i>effort</i> toward their performance in the course.	①	②	③	④	⑤
5. The treatment section seemed more <i>vital</i> in terms of student involvement.	①	②	③	④	⑤
6. Class discussions in the treatment section were more interesting and more stimulating.	①	②	③	④	⑤
7. Teaching the students in the treatment section was a more rewarding experience than teaching the control group.	①	②	③	④	⑤
8. I felt more inspired as an instructor with the treatment section.	①	②	③	④	⑤
9. I felt more motivated as an instructor with the treatment section.	①	②	③	④	⑤
10. My participation in this research project was a positive experience.	①	②	③	④	⑤
11. I believe my colleagues should add service-learning to their courses.	①	②	③	④	⑤
12. I will <i>offer</i> service-learning as an option in future courses.	①	②	③	④	⑤
13. I will <i>require</i> service-learning participation in future courses.	①	②	③	④	⑤

Return completed survey to: Judith S. Berson, Broward Community College, Downtown Center

Broward Community College Student Survey

Name of Professor _____ Course # _____
Course _____ Time _____ Days _____ Campus _____

Thank you for completing the following survey. Your cooperation will be helpful in improving the delivery of instruction at BCC and other institutions of higher education. Your answers will be treated confidentially. You do not need to sign this form.

Please place an "X" over the appropriate circle for each item below to describe your opinion of the above course during this past semester.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	①	②	③	④	⑤
1. Overall, this was an excellent course.	①	②	③	④	⑤
2. Overall, the instructor was an excellent teacher.	①	②	③	④	⑤
3. The instructor motivated me to do my best work.	①	②	③	④	⑤
4. I feel that I performed up to my potential in this course.	①	②	③	④	⑤
5. Grading was a fair assessment of my performance in this class.	①	②	③	④	⑤
6. This course required more work than others of equal credit.	①	②	③	④	⑤
7. The instructor showed a genuine concern for the students.	①	②	③	④	⑤
8. The instructor delivered clear, organized explanations.	①	②	③	④	⑤
9. The grading system was clearly defined.	①	②	③	④	⑤
10. The instructor made class interesting.	①	②	③	④	⑤
11. The instructor was receptive to discussion outside class.	①	②	③	④	⑤
12. The instructor's preparation was satisfactory.	①	②	③	④	⑤
13. I learned a great deal in this course.	①	②	③	④	⑤
14. Reading assignments were interesting and stimulating.	①	②	③	④	⑤
15. Exams covered the important aspects of the course.	①	②	③	④	⑤
16. I felt motivated to learn.	①	②	③	④	⑤
17. Class discussions were interesting and stimulating.	①	②	③	④	⑤

You are encouraged to use the area below and the reverse of this form for additional comments:

Your social security number will assist us in verifying that all responses have been received (optional) _____

Return completed survey to: Judith S. Berson, Broward Community College, Downtown Center.

Summary of Project Sites

Community Agencies:

Southeast Florida Library Information Network (SEFLIN)
Secret Woods Nature Center
Habitat for Humanity
Women's Service Network
Boca Raton Beach Clean-up
Plantation Animal Hospital
Kids in Distress
Humane Society
Legal Aid Society
Markham Park
Catholic Divine Mercy Church
San Isidro Church
Memorial Hospital
The Poverello Center Food Bank and Thrift Shop
Henderson Mental Health Center Food and Clothing Drive
Flamingo Gardens
Toys for Tots Holiday Drive
Wildlife Care Center
Quiet Waters Park
Salvation Army
Anne Kolb Nature Center
South Florida Children's Foundation
City of Fort Lauderdale Fire Department Annual Toy Drive
Boca Raton Convalescent Center

Public and Private Schools

South Broward High School
Silver Ridge Elementary School
Harbordale Elementary School
Westwood Heights Elementary School
Il Peretz Jewish Sunday School
Plantation High School Marching Colonels/Colorguard
Bethany Christian School
Davie Elementary School
Tilat's Tots Private School
Miami Coral Park Senior High School DECA
Sunset School for Severely Emotionally Disturbed Children
All Saints Church School

Broward Community College

Office of Disability Services
Honors Institute/PTK
Community Connection Office of Service-Learning
College/University Library
Orientation Welcome Tables at Registration Periods
Peer Tutoring
Math Lab

Day Care Centers

Marathon Key Day Care Center (BCC Retreat)
BCC Seahawk After-School Program
BCC Little Learners College Day Care Center
St. Marks Lutheran School-Day Care Center

Student-Developed Projects

Tutoring/baby-sitting special needs children
Caring for autistic sibling after school
Own children's elementary school
Assisting the elderly
Lauderdale Manors Community Association
Roserio & Assoc. Fingerprinting Service
Pill Box Pharmacies & Surgical Supplies
Meadowbrook Condominium
T.J. Swann Productions
Stephen Finkelstein, D.O.

Appendix E
Notes from Faculty Interviews

Questions and Responses to Open-Ended
Interviews with Participating Faculty

Question 1—How were projects assigned?

1. Representative from Community Connection, BCC's office of service-learning and volunteerism, visited the class, provided examples of service projects, and shared journals. Students were encouraged to go to the Community Connection Office to obtain a list of openings. Some of the students were placed by Community Connection staff and some found their own volunteer sites.
2. Invited Community Connection staff to speak to class. Always wanted to do an environmental theme therefore requested that Community Connection find students sites in keeping with the theme of the environment. In addition, instructor offered a site that was used as a class project—with students performing an environmental play for Davie elementary school children.
3. *Difficulty getting students place until the second month of the term. Began with 18 students but only 5-6 students completed the service. Two found own jobs in schools where their children are students and one found a job in a hospital.
4. Students took care of obtaining their own assignments.
5. * (Instructor not interviewed).
6. Most students found their own jobs. Difficulty in catching up with Community Connection staff. One student could not get placed as he was too young to work in a hospital. Others worked with Habitat for Humanity.
7. Community Connection provided a list of 18 possible sites. Almost 60% of the class were already providing service and stayed at their same sites. The remaining 40% chose sites from list that were close to home or easy, i.e., Seahawk After School Program (on-campus), Toys for Tots Holiday Events, or child care. Also offered an incentive by promising possible summer camp jobs to students who proved themselves during the term.

Question 2—How would you evaluate the quality/relevance of the placements?

1. Students worked in social service agencies and who did tutoring, counseling teens at a church were all relevant.
2. The service jobs forced the students to read and speak. Even if they were only filing documents, they had to read the headings.
3. The learning was "in context."
4. *Instructor felt that the jobs were relevant and that those students improved their skills
more than the other students.
5. Instructor did not evaluate the quality of the service placements
6. *(Instructor not interviewed.)
7. Tu-Th were excellent however M-W-F were not so good.

Question 3—How would you evaluate the service you received from Community Connection?

1. Community Connection monitored hours, called placement locations, and followed up on collecting forms.
2. More staff was needed in Community Connection to serve student needs. Even though students were excited and motivated, their enthusiasm waned as they had to wait too long for a placement.
3. * Community Connection gave a classroom presentation but did not follow through. No one was in the office and students could not get information.
4. Satisfied with service. The staff came in to do classroom presentation.
5. * (Instructor not interviewed.)
6. The Community Connection staff member was very cooperative. Gave a lot of attention. Tough with all students who needed assistance. Time sheets had to be turned in if the student wanted credit on the co-curricular transcript.
7. Poor.

Question 4—How would you describe the extent to which you integrated community service into the subject?

1. The students were required to keep journals of their service activity. The service was a basis for a paragraph they had to write, a basis for group work and group sharing. The journals were collected at the end of the term and reviewed although not graded. Did not see great improvement in syntax or grammar.
2. Students wrote journals, did in-class assignments and instructor asked for insight from experiences. Final exam also asked about the service experience.
3. *Since this was a course in phonetics, the jobs helped in practice and self practice as well as the small group sharing and journal writing.
4. Minimal integration.
5. * (Instructor not interviewed.)
6. General class discussions on problems, journals. When more volunteers were needed at a site, the students would recruit their classmates!!
7. Found it a natural fit to work in the history of service-learning with 2020 American History course work. Integrated the period between 1890 to 1920 when progressivism began the history of volunteerism.

Question 5—How would you compare attendance between the Treatment and Control group?

1. Any difference was negligible and due more to the nature of college preparatory students than the service-learning activity.
2. Attendance is required in this course anyway. No significant difference noted.
3. *Could not compare since so few students did the service.
4. Tu-Thur 24 absences M-W-F 28 absences. No significant difference noted although feeling noted that attendance was better than in previous terms. Instructor feels that Tu-Thurs sections do not do as well at this level due to lack of retention of material between Thursday and following Tuesday.
5. * (Instructor not interviewed.)
6. Attendance was better for the treatment group T=86 absences C=126 absences
7. Adult students tended to reject the service requirement.

Question 6—How would you describe the extent to which the service-learning affected the course grade?

1. Not negative, but not as positive as instructor would have like to have seen.
2. Imbedded in the final exam (30% of grade), however it did not hurt the final grade if they did not do the service.
3. *Grade depended on accent reduction . Service-learning students did much better though not sure whether this could be attributed to higher levels of motivation or the actual service.
4. Service was required but did not make a difference in the course grade.
5. * (Instructor not interviewed.)
6. Not necessarily any effect on course grade.
7. Tues-Thurs section had many A's because service-learning counted as 20% toward grade. Students (mostly athletes) who did not do the service got C's instead of A's.

Question 7—How did the service projects compare?

1. Some students had a valuable experience while others looked for an easy way out.
2. All were meaningful due to the common focus on environmental issues.
3. *Students seemed happy with their placements, i.e., airport international information desk, BCC computer lab, a hospital, and two worked in their children's school.
4. Several students who elected to serve in the high schools they just graduated from, did not do anything much of merit.
5. * (Instructor not interviewed.)
6. Some seemed forced whereas some were very creative.
7. Ran the gamut (see roster attached)

Question 8—How do you think service-learning should be offered to classes?

1. It should be mandatory if at all in certain courses based on the level of the course (i.e., English 1101 as the students would have already had to prove a basic knowledge of English.
2. Mandatory was no problem. Voluntary would not have had the same impact. Need staffing to give one-on-one service to students as they need reassurance and referrals.
3. *Must be made easy to go out into the community, especially for foreign students. Pre-arrangement of project sites is very important.
4. Should be voluntary but not mandatory. Required lab hours in this course and outside responsibilities preclude recommending a service-learning as a requirement.
5. * (Instructor not interviewed.)
6. Certainly not required, “should be offered with enthusiasm” or included in the catalog. Instructor preferred to be flexible.
7. Should be optional but a definite impact on the course grade.

Question 9—How would you summarize your experience in this research study?

1. Maybe ENC1101 is not the right place for service-learning because it may be too demanding. English requires loads of paperwork, grading papers, etc.
2. Support services must make it easy for students to volunteer. Instructor offered a class project (going into a nearby elementary school, based on a case study she heard at a service-learning workshop on a Stanford University service-learning project where business students adopted a nursing home for the entire academic year (providing budgeting, paying bills, financial planning, food service, etc.) Would prefer to see service integrated into higher level English courses 1241 and 1341.
3. * Offering service-learning as an option following term (3 have taken the option thus far).
4. The Community Connection presentation to the class was very important. Anecdote: One student asked to transfer to the instructor’s other section (the Control group). Instructor believed it was to get out of the service requirement. It was actually a scheduling issue and when the student reported her disappointment that she would not be able to do the service, the instructor allowed her to do it as an option as long as she did not tell the others in the class! One student never did the service.
5. * (Instructor not interviewed.)
6. The following term (Winter) the students were very enthusiastic when it was optional. Our students have kids, work full time, and are over-burdened. Instructor “Liked the service-learning class vs. the apathy in the control group” Service section starts to feel good about their out of class activities, get different impressions of each other. When it clicks, “something magical and nice happens.”
7. Gave a laboratory experience to the treatment group. The evening section was a surprise to the instructor (who has always encouraged and offered service *options*), that 75% were already doing service on their own.

VITA

January 27, 1945	Born, Bronx, New York
1966	B.S., Business Administration Fairleigh Dickinson University Teaneck, New Jersey
1967-72	Placement Counselor New Jersey Job Services Englewood, New Jersey
1972-73	Assistant Director of Financial Aid Kean College of New Jersey Union, New Jersey
1973	M.A., Personnel Administration Montclair State College Upper Montclair, New Jersey
1973-74	Associate Director of Student Financial Aid Fairleigh Dickinson University Teaneck, New Jersey
1974-75	Director of Financial Aid Operations University of Miami Coral Gables, Florida
1975-81	Director of Financial Aid Adjunct Faculty Member - Business Studies Miami-Dade Community College/Wolfson Campus Miami, Florida
1979	Jose Marti Community Service Award Cuban Lions Club
1979	Student Affairs Exemplary Practice Award Florida Association of Community Colleges
1981-91	Director of Student Financial Services, Disability Services, & Veterans Affairs Broward Community College Fort Lauderdale, Florida

1991-1996	Associate Vice President for Student Affairs Broward Community College Fort Lauderdale, Florida
1996	Honorary Lifetime Membership Award Florida Association of Student Financial Aid Administrators
1997-Present	Vice President for Student Affairs Broward Community College Fort Lauderdale, Florida

PUBLICATIONS AND PRESENTATIONS

Berson, J.S. (May, 1980). Using multi-media in student employment. Paper presented at the meeting of the Florida Association of Student Financial Aid Administrators (FASFAA), Palm Beach, Florida.

Berson, J.S. (June, 1986). Immigration issues. Paper presented at the meeting of the Florida Association of Student Financial Aid Administrators (FASFAA), Miami Beach, Florida.

Berson, J.S. (July, 1986). Eligibility of non-citizens. Paper presented at the meeting of the National Association of Student Financial Aid Administrators (NASFAA), Washington, DC.

Berson, J.S. (May, 1987). New directions in financial aid. Paper presented at the meeting of the Florida Association of Community Colleges (FACC) Student Development Commission, University of Florida, Gainesville, Florida.

Berson, J.S. (1989). Earn while you learn: A guide to South Florida employer tuition assistance programs. Broward Community College, Fort Lauderdale, FL

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Berson, J.S. (October, 1990). Incentives for student success: early awareness programs that work. Paper presented at the meeting of the U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE) Project Directors, Washington, DC.

- Berson, J.S. (November, 1990). The impact of financial aid policies on access in the 1990's. Paper presented at the meeting of the meeting of the College Board National Forum, Boston, Massachusetts.
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